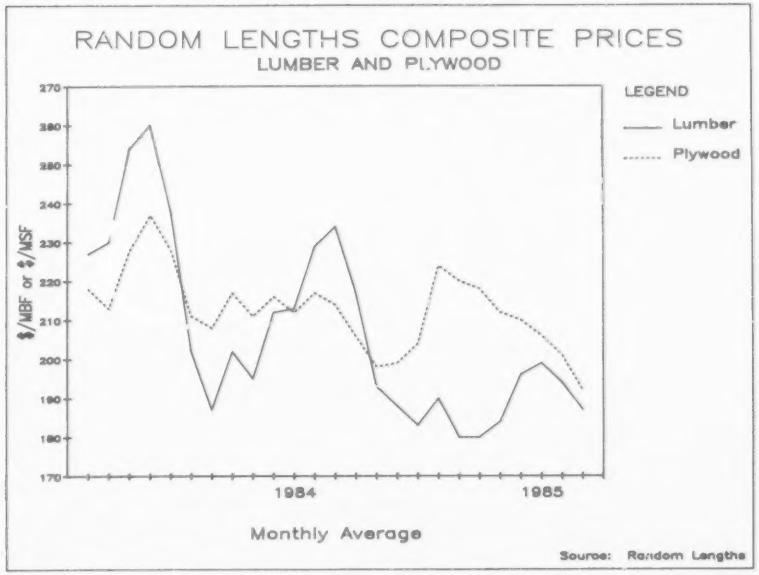
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	% Change From		Latest Period Available	% Change From
	Mar. '85	Feb. '85	Mar. '84	3 mo. '85	3 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	23.9	10.6%	4.3%	67.4	7.7%
Private	20.2	11.0%	4.5%	56.7	7.6%
Residential	10.0	16.3%	-4.2%	27.4	-1.2%
Nonresidential & Other	10.2	6.2%	14.6%	29.3	17.4%
Public	3.8	11.8%	5.9%	10.8	9.1%
	Mar. '85	Feb. '85	Mar. '84	3 mo. '85	3 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	145.2	51.6%	-16.1%	346.4	-37.1%
New Private Starts	145.0	52.0%	-16.0%	521.2	-5.1%
Seas. Adj. Annual Rate	1889	14.7%	-6.3%		
One-Family Housing Starts	92.6	46.1%	-13.0%	324.5	-5.4%
Proportion of Total	63.8%			93.7%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	24,000	21.8%	-5.9%	62,300	-8.0%

EMPLOYMENT STATISTICS

		% Change From	
	Mar. '85	Feb. '85	Mar. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	96,538	0.4%	3.3%
All Manufacturing Industries	19,713	-0.1%	0.9%
Lumber and Wood Products	709	0.1%	-0.7%
Furniture and Fixtures	499	0.4%	3.5%



6/27/85

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1975	6,967	7,134	8,445	1,690	1,475	25,711	2,761	1,109	2,002	5,872	31,583
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,033	1,171	2,213	6,417	36,110
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,063	1,207	2,410	6,680	38,417
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,242	1,228	2,527	6,997	39,054
1979	9,283	8,427	9,780	1,818	2,124	31,432	3,452	1,261	2,581	7,294	38,726
1980	8,217	6,815	7,613	1,589	2,012	25,246	3,314	1,211	2,533	7,058	33,304
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,343	1,225	1,626	6,194	30,870
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,399	5,062	28,849
1983•											
1ST QUARTER	2,498	2,025	1,933	419	347	7,222	477	168	592	1,237	8,459
2ND QUARTER	2,717	2,094	2,187	405	374	7,777	489	152	589	1,230	9,007
3RD QUARTER	2,694	1,938	2,268	382	358	7,644	618	172	725	1,515	9,159
4TH QUARTER	2,497	1,877	2,106	374	347	7,201	611	156	705	1,472	8,673
TOTAL YEAR	10,406	7,934	8,488	1,580	1,436	29,844	2,195	648	2,611	5,454	35,298
1984•											
1ST QUARTER	2,663	2,276	2,235	456	386	8,016	612	135	685	1,432	9,448
2ND QUARTER	2,832	2,206	2,410	465	400	8,313	617	150	705	1,472	9,785
3RD QUARTER	2,735	1,932	2,196	430	368	7,661	661	122	720	1,503	9,164
4TH QUARTER	2,617	1,699	2,082	399	343	7,140	613	90	647	1,350	8,490
TOTAL YEAR	10,847	8,113	8,923	1,750	1,497	31,130	2,503	497	2,757	5,757	36,887
1985•											
1ST QUARTER	2,442	1,814	1,975	474	339	7,044	648	130	716	1,494	8,538
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,442	1,814	1,975	474	339	7,044	648	130	716	1,494	8,538
SHIPMENTS											
1975	7,142	7,196	8,519	1,625	1,488	25,970	2,727	1,095	1,977	5,799	31,769
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,028	1,168	2,209	6,405	35,947
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,104	1,240	2,450	6,794	38,636
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,232	1,221	2,518	6,971	39,105
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,316	1,162	2,453	6,931	38,165
1980	8,018	6,821	7,807	1,590	2,012	26,248	3,092	1,048	2,316	6,456	32,704
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,282	1,168	1,583	6,033	30,770
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	635	2,489	5,251	28,935
1983•											
1ST QUARTER	2,496	1,827	1,830	364	329	6,846	516	187	646	1,349	8,195
2ND QUARTER	2,755	2,154	2,187	419	380	7,895	543	178	662	1,383	9,278
3RD QUARTER	2,690	1,925	2,151	410	363	7,539	612	169	718	1,499	9,038
4TH QUARTER	2,500	1,896	2,096	389	348	7,229	591	148	679	1,418	8,647
TOTAL YEAR	10,441	7,802	8,264	1,582	1,420	29,509	2,262	682	2,705	5,649	35,158
1984•											
1ST QUARTER	2,567	2,158	2,122	439	368	7,654	610	135	683	1,428	9,082
2ND QUARTER	2,824	2,225	2,391	460	399	8,299	605	146	691	1,442	9,741
3RD QUARTER	2,761	2,002	2,279	435	378	7,855	618	111	669	1,398	9,253
4TH QUARTER	2,590	1,880	2,205	418	358	7,451	583	85	614	1,282	8,733
TOTAL YEAR	10,742	8,265	8,997	1,752	1,503	31,259	2,416	477	2,657	5,550	36,809
1985•											
1ST QUARTER	2,386	1,776	1,895	403	327	6,787	646	129	713	1,488	8,275
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,386	1,776	1,895	403	327	6,787	646	129	713	1,488	8,275
NEW ORDERS											
1975	7,251	7,430	8,665	1,702	1,583	26,631	2,745	1,104	1,991	5,840	32,471
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,011	1,144	2,190	6,345	36,015
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,153	1,256	2,489	6,898	38,792
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,272	1,238	2,552	7,062	39,065
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,240	1,118	2,386	6,744	37,797
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,033	1,044	2,280	6,357	32,401
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,310	1,185	1,600	6,095	30,692
1982	8,510	5,976	6,880	1,388	1,311	24,065	2,123	650	2,497	5,270	29,335
1983•											
1ST QUARTER	2,639	1,916	1,927	342	345	7,169	511	185	640	1,336	8,505
2ND QUARTER	2,718	2,102	2,197	403	375	7,795	546	179	667	1,392	9,187
3RD QUARTER	2,679	1,914	2,163	416	362	7,534	615	172	723	1,510	9,044
4TH QUARTER	2,611	1,932	2,063	412	355	7,373	622	153	712	1,487	8,860
TOTAL YEAR	10,647	7,864	8,350	1,573	1,437	29,871	2,294	689	2,742	5,725	35,596
1984•											
1ST QUARTER	2,465	2,304	2,169	419	372	7,729	646	142	723	1,511	9,240
2ND QUARTER	2,797	2,037	2,307	417	382	7,940	551	143	637	1,331	9,271
3RD QUARTER	2,738	2,019	2,319	446	381	7,903	595	109	648	1,352	9,255
4TH QUARTER	2,509	1,792	2,199	437	350	7,287	593	63	603	1,259	8,546
TOTAL YEAR	10,509	8,152	8,994	1,719	1,485	30,859	2,385	457	2,611	5,453	36,312
1985•											
1ST QUARTER	2,358	1,794	1,901	414	327	6,794	672	129	737	1,538	8,332
2ND QUARTER											
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	2,358	1,794	1,901	414	327	6,794	672	129	737	1,538	8,332

• SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING

6/27/85

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1975	7,075	9,561	9,220	1,588	2,865	30,309	2,722	3,069	5,791	36,100
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983*										
1ST QUARTER	2,442	3,290	1,982	359	1,150	9,223	487	810	1,297	10,520
2ND QUARTER	2,698	3,695	2,333	413	1,300	10,439	505	806	1,311	11,750
3RD QUARTER	2,644	3,638	2,296	403	1,273	10,254	572	858	1,430	11,684
4TH QUARTER	2,449	3,486	2,237	383	1,271	9,826	558	802	1,360	11,186
TOTAL YEAR	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,528	3,816	2,280	434	1,304	10,362	588	781	1,369	11,731
2ND QUARTER	2,771	3,927	2,560	445	1,402	11,105	576	821	1,397	12,501
3RD QUARTER	2,725	4,034	2,425	430	1,463	11,077	592	751	1,343	12,420
4TH QUARTER	2,551	3,750	2,325	414	1,352	10,392	557	658	1,214	11,606
TOTAL YEAR	10,575	15,528	9,589	1,722	5,521	42,935	2,313	3,010	5,323	48,258
1985*										
1ST QUARTER	2,349	3,609	1,998	400	1,299	9,654	651	846	1,497	11,151
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
TOTAL YEAR	2,349	3,609	1,998	400	1,299	9,654	651	846	1,497	11,151

* SUBJECT TO REVISION

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

6/82/85

TABLE 3

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1975	477.0	56.8	726.2	2,989.0	1,033.3	388.3	6.0	94.8	5,711.4	224.1	12.4	5,947.9
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.2	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,312.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	637.8	35.4	193.7	11,117.7	376.2	29.3	11,523.2
1980	559.0	440.8	627.8	6,167.9	1,023.9	543.4	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.7	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	28.8	149.4	9,118.9	211.0	26.2	9,356.0
1983												
1ST QUARTER	137.7	149.8	108.5	1,955.7	226.8	170.4	8.5	54.0	2,811.4	55.4	1.6	2,868.4
2ND QUARTER	132.5	181.0	85.0	2,148.9	240.0	157.9	24.0	61.7	3,031.0	61.0	4.0	3,096.1
3RD QUARTER	184.3	225.9	123.6	2,081.1	234.0	178.2	26.0	67.5	3,122.7	63.6	3.8	3,190.0
4TH QUARTER	145.8	152.0	99.5	2,168.7	219.0	157.6	13.0	56.8	3,012.3	80.5	3.2	3,095.9
TOTAL YEAR	600.3	708.6	416.7	8,354.4	919.8	664.1	73.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2,152.8	240.7	190.9	9.4	75.6	3,095.6	85.7	3.1	3,184.4
2ND QUARTER	137.1	168.6	96.8	2,390.5	251.8	136.3	9.0	59.3	3,249.4	87.1	6.6	3,343.1
3RD QUARTER	147.5	264.4	140.5	2,351.2	225.8	200.9	8.9	72.8	3,612.0	73.9	8.0	3,693.9
4TH QUARTER	178.2	151.0	142.6	2,377.0	183.4	176.4	7.7	67.3	3,313.2	81.0	6.5	3,400.7
TOTAL YEAR	603.0	765.1	514.9	9,471.4	901.6	704.1	35.0	275.0	13,270.2	327.7	24.2	13,622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2,257.0	165.8	210.2	26.9	66.9	3,241.6	105.9	3.2	3,350.7
2ND QUARTER												
3RD QUARTER												
4TH QUARTER												
TOTAL YEAR	154.6	189.1	171.1	2,257.0	165.8	210.2	26.9	66.9	3,241.6	105.9	3.2	3,350.7

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1975	505.1	67.5	177.0	37.4	317.5	158.8	35.7	74.2	----	1,373.2	165.3	75.6	1,614.1
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	73.7	----	1,584.5	225.5	30.9	1,840.9
1977	488.3	157.8	195.0	48.1	264.2	150.7	61.3	47.0	----	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.3	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	20.2	1,956.0	378.6	128.3	2,462.9
1981	509.0	211.2	223.8	37.7	390.2	141.4	66.9	280.6	16.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983													
1ST QUARTER	134.3	54.1	40.8	5.0	95.2	35.2	11.8	54.8	2.7	434.0	100.5	9.2	543.7
2ND QUARTER	170.2	57.0	57.5	6.4	95.0	27.2	12.8	58.2	2.9	487.2	121.0	16.4	624.6
3RD QUARTER	121.6	46.3	53.6	6.6	86.2	28.1	12.0	50.8	2.0	407.2	126.0	10.6	543.8
4TH QUARTER	133.1	51.0	45.4	6.1	99.8	23.3	10.2	44.1	3.1	416.1	130.8	11.1	557.9
TOTAL YEAR	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	159.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1,599.3	466.5	84.6	2,150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER													
3RD QUARTER													
4TH QUARTER													
TOTAL YEAR	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7

1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availa prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 1978 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIE, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

6/27/85

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1975	1,134	980	1,870	477	862	4,063	448	427	875	4,938
1976	1,245	949	1,315	434	871	4,814	453	434	887	5,101
1977	1,192	964	1,329	359	865	4,109	412	361	773	4,882
1978	1,197	903	1,295	377	260	4,032	482	378	800	4,832
1979	1,225	918	1,379	435	273	4,230	558	605	1,163	5,393
1980	1,424	912	1,185	434	273	4,228	780	985	1,765	5,993
1981	1,451	912	1,149	385	270	4,167	841	1,085	1,926	6,093
1982	1,741	862	1,055	336	276	4,270	775	962	1,737	6,007
1983*										
1ST QUARTER	1,743	1,060	1,158	391	294	4,646	736	889	1,625	6,271
2ND QUARTER	1,705	1,000	1,158	377	288	4,528	682	790	1,472	6,000
3RD QUARTER	1,709	1,013	1,269	349	293	4,633	688	800	1,488	6,121
4TH QUARTER	1,706	994	1,279	334	292	4,605	708	834	1,542	6,147
1984*										
1ST QUARTER	1,802	1,112	1,392	351	310	4,967	710	836	1,546	6,513
2ND QUARTER	1,810	1,093	1,411	356	311	4,981	722	854	1,576	6,557
3RD QUARTER	1,784	1,023	1,328	351	301	4,787	765	916	1,681	6,468
4TH QUARTER	1,811	842	1,205	332	286	4,476	795	954	1,749	6,225
1985*										
1ST QUARTER	1,867	880	1,285	403	298	4,733	797	958	1,755	6,488
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1975	453	350	538	204	256	2,001	260	177	437	2,438
1976	450	634	554	227	264	2,129	243	134	377	2,506
1977	488	565	590	271	267	2,181	292	189	481	2,662
1978	535	553	469	234	259	2,050	332	230	562	2,612
1979	553	529	403	138	246	1,869	256	119	375	2,244
1980	499	499	326	111	230	1,665	197	79	276	1,941
1981	544	429	219	111	222	1,525	225	113	338	1,863
1982	590	612	324	150	230	1,906	221	136	357	2,263
1983*										
1ST QUARTER	733	701	421	128	246	2,229	216	128	344	2,573
2ND QUARTER	696	649	431	112	241	2,129	219	134	353	2,482
3RD QUARTER	685	638	443	118	240	2,124	222	142	364	2,488
4TH QUARTER	796	674	410	141	247	2,268	253	180	433	2,701
1984*										
1ST QUARTER	694	820	457	121	251	2,343	289	225	514	2,857
2ND QUARTER	667	632	373	78	234	1,984	235	172	407	2,391
3RD QUARTER	644	649	413	89	236	2,031	212	147	359	2,390
4TH QUARTER	562	561	407	108	228	1,866	222	159	381	2,247
1985*										
1ST QUARTER	534	579	413	119	228	1,873	248	183	431	2,304
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1975	40%	60%	42%	43%	98%	49%	58%	41%	50%	49%
1976	36%	67%	42%	52%	97%	51%	54%	31%	43%	49%
1977	41%	59%	44%	75%	101%	53%	71%	52%	62%	55%
1978	45%	61%	36%	62%	100%	51%	79%	61%	70%	54%
1979	45%	58%	29%	32%	90%	44%	46%	20%	32%	42%
1980	35%	55%	28%	26%	84%	39%	25%	8%	16%	32%
1981	37%	47%	19%	29%	82%	37%	27%	10%	18%	31%
1982	34%	71%	31%	45%	83%	45%	29%	14%	21%	38%
1983*										
1ST QUARTER	42%	66%	36%	33%	84%	48%	29%	14%	21%	41%
2ND QUARTER	41%	65%	37%	30%	84%	47%	32%	17%	24%	41%
3RD QUARTER	40%	63%	35%	34%	82%	46%	32%	18%	24%	41%
4TH QUARTER	47%	68%	32%	42%	85%	49%	36%	22%	28%	44%
1984*										
1ST QUARTER	39%	74%	33%	34%	81%	47%	41%	27%	33%	44%
2ND QUARTER	37%	58%	26%	22%	75%	40%	33%	20%	26%	36%
3RD QUARTER	36%	63%	31%	25%	78%	42%	28%	16%	21%	37%
4TH QUARTER	31%	67%	34%	33%	80%	42%	28%	17%	22%	36%
1985*										
1ST QUARTER	29%	66%	32%	30%	77%	40%	31%	19%	25%	36%
2ND QUARTER										
3RD QUARTER										
4TH QUARTER										

* SUBJECT TO REVISION.

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

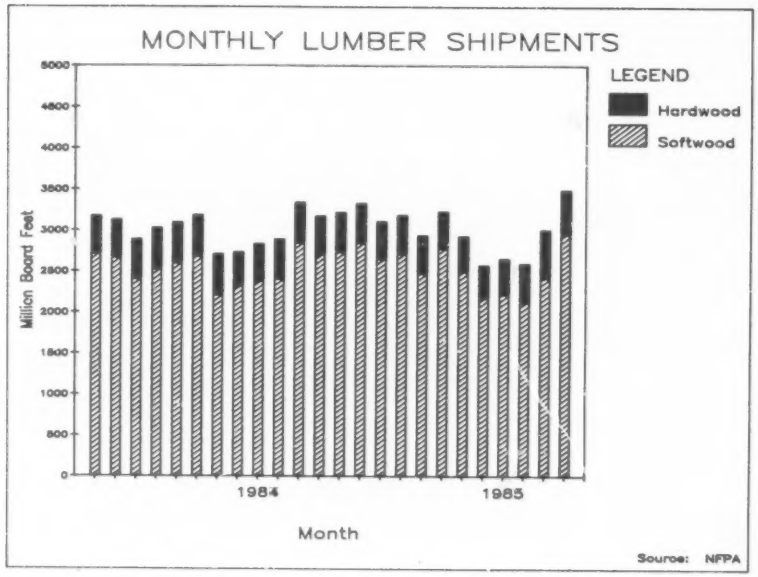
SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

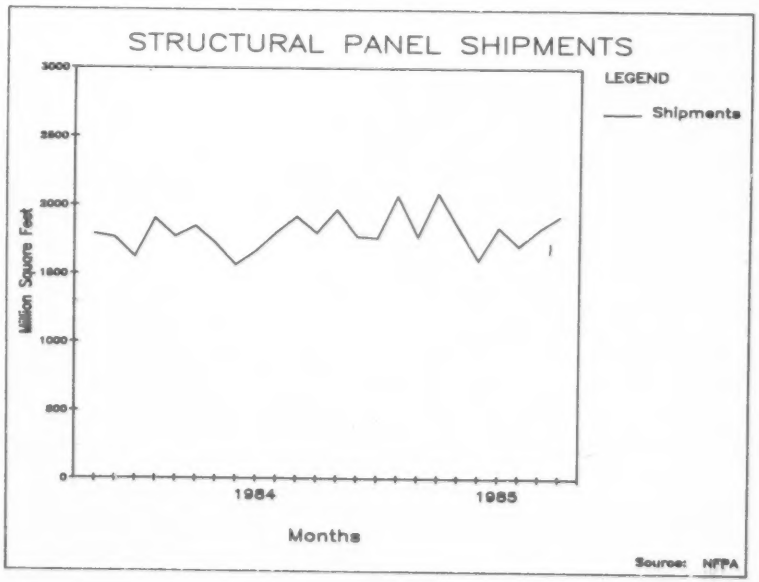
NOTE: DETAILS MAY NOT ADD TO TOTALS BECAUSE OF ROUNDING.

ECONOMICS MONTHLY
June, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	APRIL 1985			APRIL 30, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	992	1130	1130	530	1,723
Douglas Fir Region	646	691	698	586	835
Western Pine Region	815	826	877	464	1,274
California Redwood Region	155	170	181	130	388
Other Softwoods	132	142	146	232	288
TOTAL SOFTWOODS	2,740	2,959	3,032	1,942	4,508
% Change - March 1985	8.6%	21.9%	27.0%	3.9%	-4.6%
% Change - April 1984	-4.0%	9.4%	22.7%	-8.0%	-11.9%
HARDWOOD LUMBER					
Southern Hardwood Region	242	234	227	241	905
Appalachian Hardwood Reg.	48	46	44	*	*
Other Hardwoods	266	257	249	173	969
TOTAL HARDWOODS	556	537	520	414	1,774
% Change - March 1985	-1.1%	-8.4%	-9.7%	-3.9%	1.1%
% Change - April 1984	19.8%	12.8%	6.6%	-21.3%	15.6%
TOTAL LUMBER	3,296	3,496	3,552	2,356	6,282
% Change - March 1985	6.8%	16.0%	19.8%	2.4%	-3.1%
% Change - April 1984	-0.7%	9.9%	20.0%	-10.6%	-5.5%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	9,829	NA	6,2[illegible]	6,008
Maple Flooring (Sq. Ft.)	737	778	934	2,798	2,393
STRUCTURAL PANELS	1,904,706	1,921,781	2,007,530	533,091	431,522
% Change - March 1985	1.6%	5.1%	3.9%	19.2%	-10.4%
% Change - April 1984	0.6%	6.8%	19.0%	72.5%	-11.6%





YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

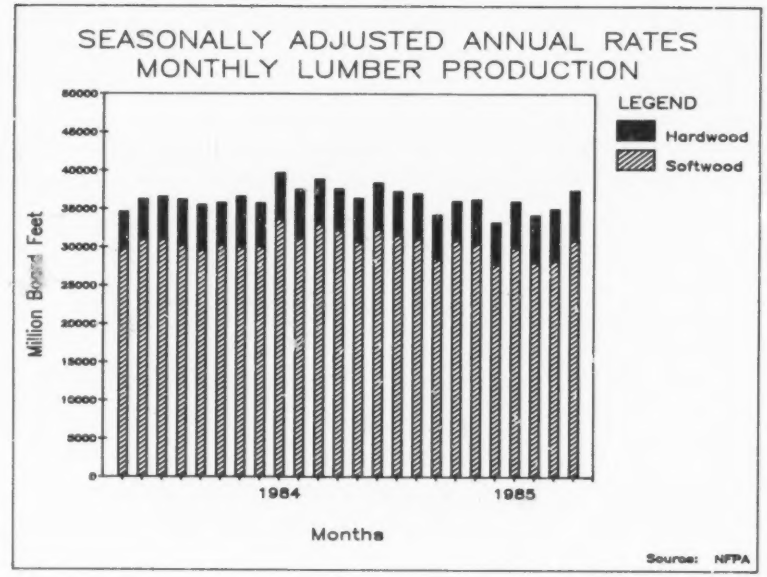
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	4 mos. '85	4 mos. '84	4 mos. '85	4 mos. '84	4 mos. '85	4 mos. '84
	(Million Board Feet)					
TOTAL LUMBER	11,834	-7.3%	11,771	-4.0%	11,884	-2.6%
TOTAL SOFTWOOD	9,784	-10.0%	9,746	-5.9%	9,826	-3.7%
TOTAL HARDWOOD	2,050	8.1%	2,025	6.4%	2,058	3.1%

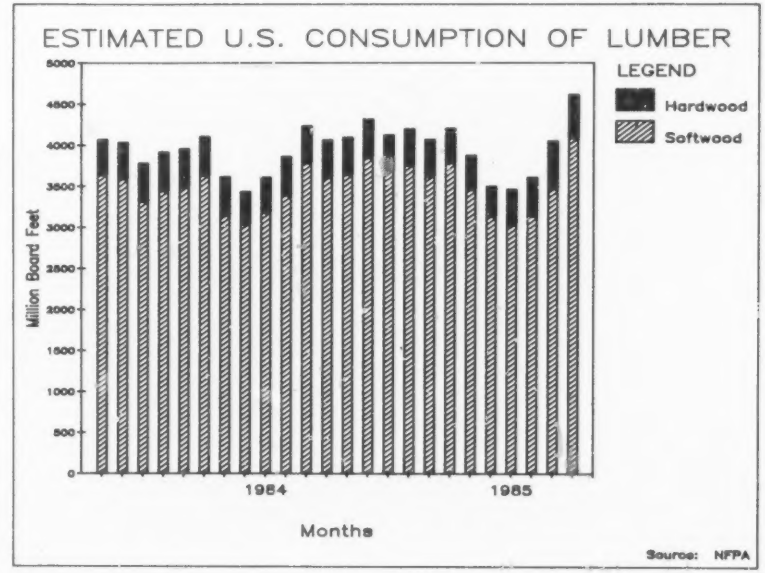
SEASONALLY ADJUSTED ANNUAL RATES

	PRODUCTION			SHIPMENTS		
		--% Change From--			--% Change From--	
LUMBER REGION	Apr. '85	Mar. '85	Apr. '84	Apr. '85	Mar. '85	Apr. '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,380	9.4%	9.7%	12,939	31.7%	33.3%
Douglas Fir	7,362	10.6%	-18.5%	7,685	12.8%	-10.8%
Western Pine	9,072	12.9%	-5.6%	9,395	27.0%	4.4%
Calif. Redwood	1,649	-9.4%	-1.3%	1,813	15.1%	5.6%
Other Softwoods	1,519	11.0%	-3.6%	1,582	20.8%	9.2%
TOTAL SOFTWOODS	30,982	9.6%	-4.0%	33,415	24.1%	9.6%
TOTAL HARDWOODS	6,509	-4.4%	19.8%	6,114	-10.5%	12.8%
TOTAL LUMBER	37,492	6.8%	-0.5%	39,528	17.1%	10.1%

U.S. LUMBER CONSUMPTION

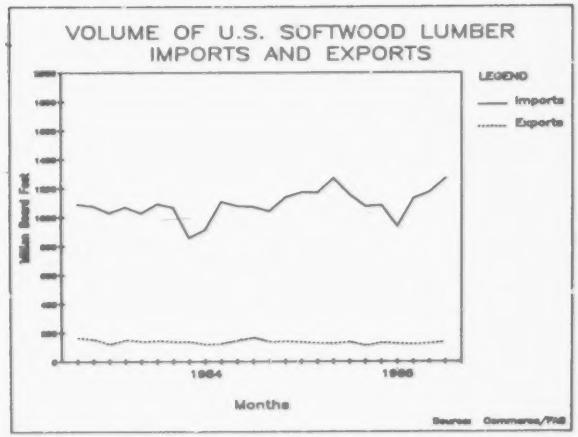
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	--% Change From--		Latest Period Available	% Change From
	Apr. '85	Mar. '85	Apr. '84	4 mos. '85	4 mos. '84
	(Million Board Feet)				
Total Consumption	4,625	13.9%	13.5%	15,776	-0.2%
Softwood Consumption	4,091	17.8%	13.3%	13,746	-1.6%
Hardwood Consumption	533	-9.1%	14.7%	2,030	10.7%

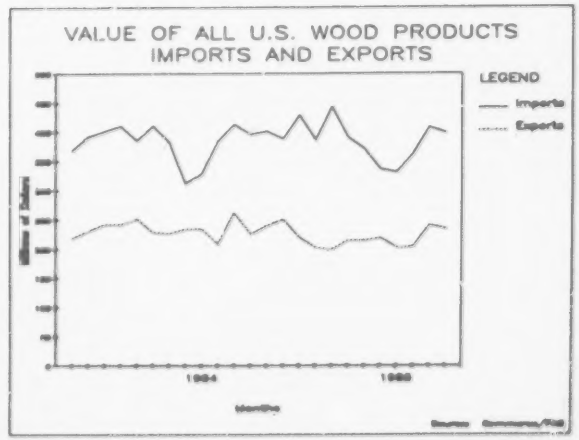




		VOLUME				VALUE (000$)			
		Apr. '85	4 mo. 1985	% Change From Mar. '85	% Change From 4 mo. 1984	Apr. '85	4 mo. 1985	% Change From Mar. '85	% Change From 4 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	136.3	510.7	6.4%	-7.7%	44,637	168,154	2.6%	-9.6%
To Canada	MMBF	26.8	9:.4	17.8%	-27.9%	7,001	23,786	18.5%	-20.9%
SOFTWOOD LOGS	MMBF	316.3	1,209.4	-5.7%	12.5%	101,928	367,567	1.0%	4.1%
SOFTWOOD PLYWOOD	MMSF 3/8"	23.3	148.8	-50.0%	-25.7%	5,632	34,312	-48.8%	-27.8%
HARDWOOD LUMBER	MMBF	33.7	136.3	-7.4%	-11.2%	21,719	83,529	-9.2%	-11.3%
HARDWOOD LOGS	MMBF	10.3	48.2	-36.6%	-20.3%	9,786	38,890	-22.7%	-10.3%
HARDWOOD VENEER	MMSFsurf	66.5	255.4	-3.7%	-34.9%	5,477	21,662	-7.8%	-30.4%
PARTICLEBOARD	MMSF 3/4"	8.7	33.6	13.4%	-19.9%	1,856	6,620	27.2%	-35.5%
ALL OTHER		NA	NA	NA	NA	42,147	156,007	4.9%	-0.5%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	234,398	880,545	-2.4%	-5.3%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,268.7	4,510.3	8.0%	8.2%	238,744	860,220	4.7%	-3.6%
From Canada	MMBF	1,257.2	4,482.2	7.7%	7.9%	236,969	855,401	4.4%	-3.8%
SOFTWOOD LOGS	MMBF	7.0	22.7	206.5%	-40.4%	1,746	5,368	150.5%	5.4%
SOFTWOOD PLYWOOD	MMSF 3/8"	5.5	29.5	-41.2%	47.9%	1,305	6,492	-41.1%	41.3%
HARDWOOD LUMBER	MMBF	28.5	134.5	-22.7%	20.2%	13,542	63,678	-20.8%	9.2%
HARDWOOD LOGS	MMBF	0.6	4.9	-9.2%	-49.0%	243	1,019	35.0%	-28.3%
HARDWOOD VENEER	MMSFsurf	110.0	398.8	-3.6%	-28.5%	8,605	31,498	2.8%	-31.4%
HARDWOOD PLYWOOD	MMSF 3/8"	283.3	1,215.9	-31.0%	28.0%	38,310	159,272	-19.0%	11.4%
HARDBOARD	MMSFsurf	53.0	215.4	-11.3%	235.5%	3,693	17,194	-10.3%	30.3%
PARTICLEBOARD	MMSF 3/4"	128,586.0	472,148.3	4.8%	30.2%	10,603	41,592	-2.7%	19.3%
ALL OTHER		NA	NA	NA	NA	81,213	312,029	-8.5%	-2.7%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	398,376	1,499,179	-2.3%	-1.4%

Note: Volume total is not possible because the products are in different units of measure.



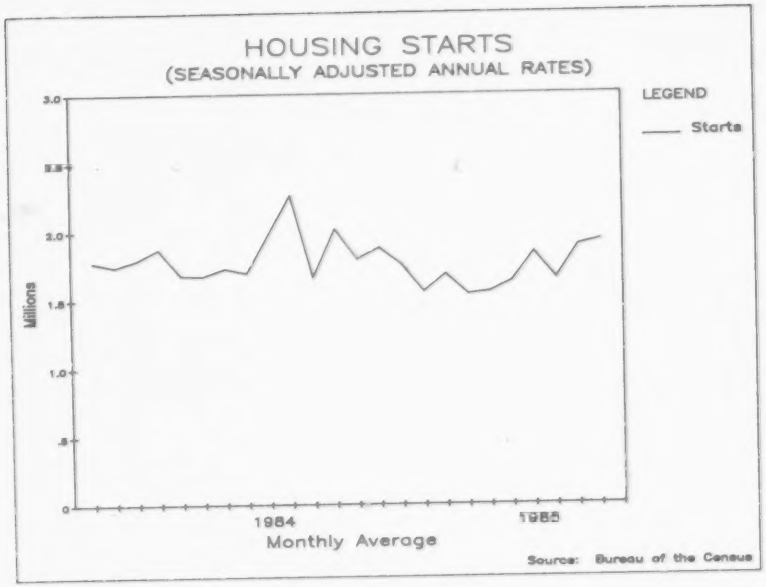


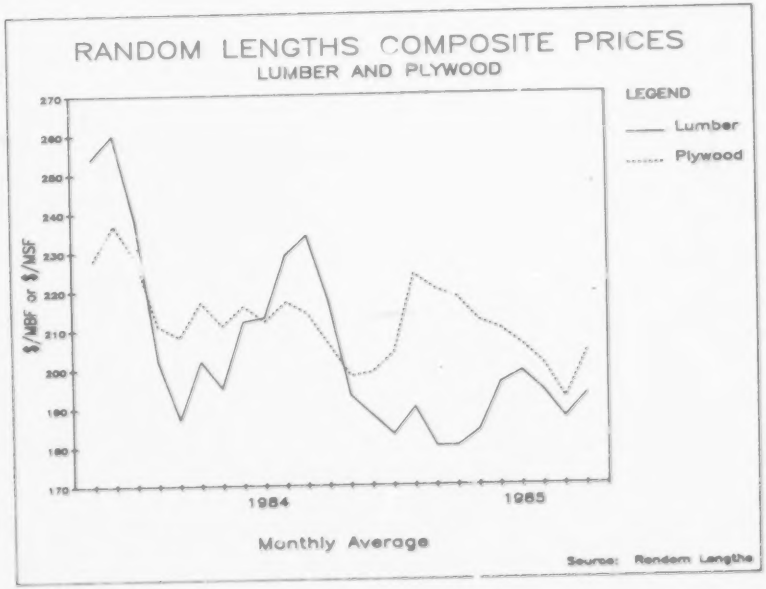
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	% Change From		Latest Period Available	% Change From
	Apr. '85	Mar. '85	Apr. '84	4 mo. '85	4 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	25.8	7.9%	6.0%	93.2	7.2%
Private	21.5	6.4%	5.6%	78.2	7.1%
Residential	10.9	9.0%	-1.2%	38.3	-1.2%
Nonresidential & Other	10.6	3.9%	13.6%	39.9	16.4%
Public	4.3	13.2%	8.3%	15.1	8.9%
	Apr. '85	Mar. '85	Apr. '84	4 mo. '85	4 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	NA	NA	NA	NA	NA
New Private Starts	175.4	21.0%	-2.9%	689.7	-5.5%
Seas. Adj. Annual Rate	1927	2.0%	7.4%		
One-Family Housing Starts	109.2	17.9%	-5.2%	432.3	-5.6%
Proportion of Total	NA			NA	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	26,200	9.2%	1.6%	88,500	-5.3%

EMPLOYMENT STATISTICS

		% Change From	
	Apr. '85	Mar. '85	Apr. '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	96,731	0.2%	3.2%
All Manufacturing Industries	19,676	-0.2%	0.5%
Lumber and Wood Products	702	-1.0%	-1.3%
Furniture and Fixtures	493	-1.4%	2.3%





(... continued)

Allocating mitigation costs is also arbitrary from an economist's point of view. These are costs such as those referenced earlier which are incurred to protect non-timber resources. An example might be costs incurred for preventing stream sedimentation. Allocation of mitigation costs rests solely on the notion of "property rights" -- an idea which presents some conceptual problems. On public lands, which resource has preminent property rights?

The Upshot -- A New Accounting System in the Works

The Forest Service is exploring different accounting approaches and hopes to have a system for identifying the costs and benefits of the timber sale program in place by March, 1986. In fact, a special Forest Service task force has been given $400,000 by the Congress to "develop proposals for a reasonable but complete [accounting] system." Once the data are available, and cost allocation is complete, policy makers will be in a somewhat better position to make informed decisions concerning timber harvests on public lands.

THE NATIONAL FORESTS: HOW TIMBER IS SOLD

Timber on the National Forests is appraised on a residual value or transaction evidence basis. The residual value method -- used in the West -- deducts from a market price for end products (including lumber, plywood and chips) the estimated costs of production for a mill of average efficiency, and after allowing for a margin of profit, arrives at a minimum bid price. A simplified formula is:

Selling Value - Cost and Profit = Appraised Value.

The Forest Service appraisal system uses a profit and risk allowance in the range of 9 to 18 percent for saw-timber appraisals, depending on the locality and circumstance.

The transaction evidence method, generally applied in eastern and southern National Forests, uses data from the sales of comparable tracts of timber as the basis for establishing the appraised value. Because of the inherent variability of timber stands, it is often difficult to obtain sufficient transactions representing conditions comparable to a sale being appraised. A number of factors are used to adjust for comparability.

Competitive Bidding

By law, National Forest timber is sold in an open auction, thus ensuring that prices represent fair market value. The appraisal price is only an advertised price. Timber is sold to the highest bidder above this minimum bid price. Because of intense competition, bid prices regularly exceed the appraised value of the timber sold. Timber is usually sold under contracts which extend three to five years. Therefore, prices can be interpreted as an expectation of market conditions in the future.

Competition for National Forest timber is fierce with the majority of sales receiving more than one bid. Only 13 percent of the volume sold from the National Forests in 1983 were in sales with one bidder. Seventy-five percent of the volume was from sales with three or more bidders. The most competitive area is Forest Service Region 6, which covers Oregon and Washington. In 1983, 1203 sales were recorded on 4.6 billion board feet of timber. Less than 7 percent of this volume was sold in sales with one bidder. Sales with one bidder are generally small sales valued at $2,000 or less.

Stumpage prices have generally followed market trends, although in western regions, prices are often influenced by uncertainty emanating from the potential for significant land withdrawals.

(continued ...)

(... continued)

Indeed, a portion of the high bidding on the West coast before 1982 was based on the fear that wilderness legislation and forest planning would significantly reduce the land base available for harvest. Contracts for timber were bid to price levels which turned out to be inoperable in any foreseeable market. Hence, the Federal Timber Modification Act was passed last year to provide an opportunity for companies to buy-back contracts and avoid bankruptcy.

In the past few years, the prices bid on federal timber have declined and are now more reflective of current markets (Figures 1). Producers are less willing to speculate, or are less optimistic, about the future. Average stumpage prices in FY1984 were actually lower than harvest prices, highlighting this point.

The Economies of Many Communities Rely on National Forests

National Forest Timber sales enhance the economic stability of many small communities. In addition to direct jobs and expenditures, local counties receive 25 percent of the value stumpage of national forest stumpage in lieu of taxes. In 1984, $193 million was paid to local counties. The effect of soft lumber markets and lower timber prices has been substantial. Payments to counties were down from an unadjusted high of $276 million in 1979.

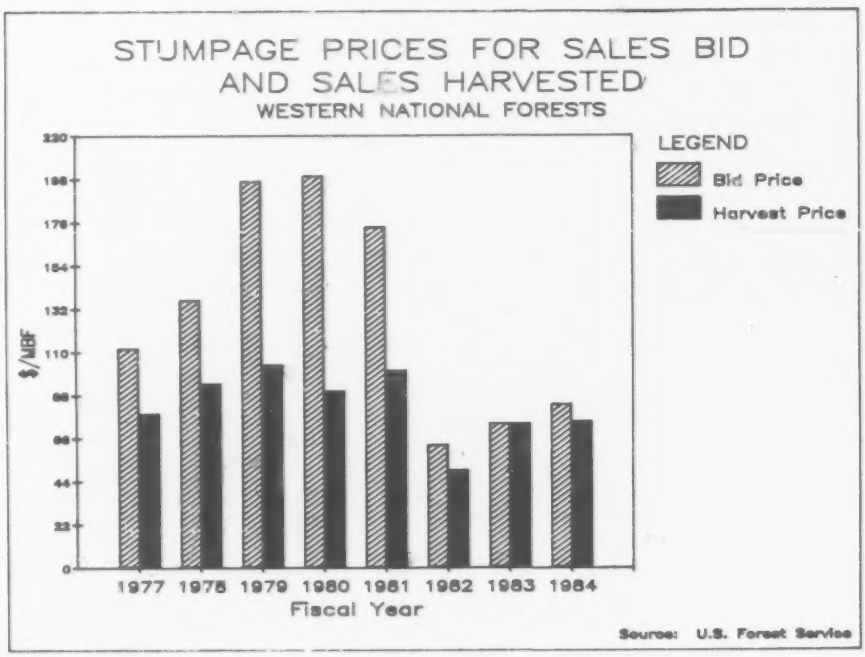


Figure 1:
The big gap between bid prices and cut prices has disappeared in the past few years.

A7870-3A

NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume 1 Number 5 July, 1985

NONRESIDENTIAL CONSTRUCTION: A FAR FROM TRIVIAL PURSUIT

The 1980's may very well be remembered in construction circles as the decade of nonresidential building. The inflation-adjusted value of commercial and industrial construction in the first half-decade of the 1980's has exceeded any previous five year period, thanks in large part to generous tax incentives implemented in 1981. In 1984, nonresidential construction totaled $97.4 billion, and during the first five months of 1985, nonresidential construction was running at an annual rate of $113 billion. In constant dollars, nonresidential construction has increased at an annual rate of about 3 percent since 1975 (Table 1; Figure 1). Particularly significant is the fact that nonresidential construction has outperformed the growth in the GNP during this last recovery: while real GNP has grown on average less than 1 percent each quarter since January 1983, the value of nonresidential construction has increased on average 2.7 percent each quarter.

The U.S. Forest Service Forest Products Laboratory (FPL) recently published findings from a 1982 study on wood use in nonresidential construction. Several industry associations participated in this study. A Profile of Wood Use in Nonresidential Construction, by Henry Spelter of the FPL and Robert Anderson of the American Plywood Association, includes detailed information on the characteristics of nonresidential building and on the wood products used in this sector. Wood use factors calculated in this study update similar data last published in 1969. A copy of this publication may be obtained by contacting the Forest Service Forest Products Laboratory, P.O. Box 5130, Madison, Wisconsin 53705. A summary is presented here, along with estimates of wood use developed by NFPA for the most current year.

Nonresidential Construction -- What's in it for Wood?

The category of nonresidential construction includes: office buildings, commercial structures (e.g. shopping centers), schools, hospitals, public buildings and hotels. The values include expenditures for new buildings as well as for additions and alterations to existing buildings. In 1984, offices accounted for 27 percent of the total; commercial structures for 23 percent

Wood products are not the predominant building material in nonresidential construction; the major market for wood is new housing. Nonresidential construction is characterized by larger buildings

MONTHLY STATISTICAL HIGHLIGHTS

Softwood log exports during May rose 12.3 percent; for the first 5 months of 1985, log exports were up 14.7 percent over the same period last year.

Softwood lumber imports from Canada continue to climb, up 10.4 percent in May.

April's hardwood lumber shipments were at a seasonally adjusted annual rate of 6,247 million board feet, up 10.4 percent from last year.

U.S. softwood lumber consumption during the first 5 months of 1985 is up slightly from last year's level to 17,953 million board feet.

Copyright 1985. National Forest Products Association. All rights reserved. Information and data collected and compiled by NFPA may not be reproduced, offered through any retrieval system or data bank, or otherwise circulated for resale without the prior written permission by NFPA.

Figure 1:
The value of nonresidential construction has been steadily increasing.

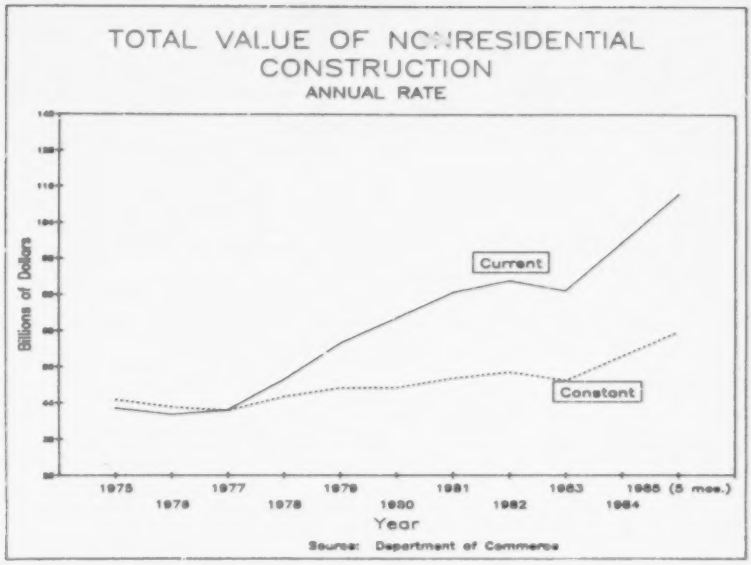


Table 1:

Value of Nonresidential Construction
Current Dollars

	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	'1to 5/85
	($ Millions)										
Nonresidential Buildings											
Office	4,973	4,763	5,266	6,574	9,461	13,318	17,473	23,049	20,768	25,940	31,760
Industrial	8,936	8,088	8,782	12,178	16,062	15,278	18,685	18,975	14,670	15,573	18,060
Other Commercial	7,833	7,993	9,514	11,991	15,463	16,627	16,775	14,235	15,025	22,167	28,180
Religious	867	956	1,046	1,248	1,548	1,637	1,665	1,543	1,780	2,132	2,260
Educational	8,327	7,002	6,119	6,993	7,709	9,225	7,908	7,283	6,786	6,968	7,540
Hospital and Instit'nal	4,954	5,266	5,023	5,169	5,178	5,831	6,990	7,866	8,657	8,336	7,820
Hotel	1,139	935	998	1,267	2,206	2,997	3,876	4,221	5,366	7,000	7,620
Miscellaneous	5,235	5,062	4,832	6,329	6,224	7,387	7,393	7,522	8,200	9,277	10,140
TOTAL	42,264	40,065	41,583	51,749	63,851	72,300	80,765	84,694	81,252	97,393	113,380

Value of Nonresidential Construction
Constant (1977) Dollars

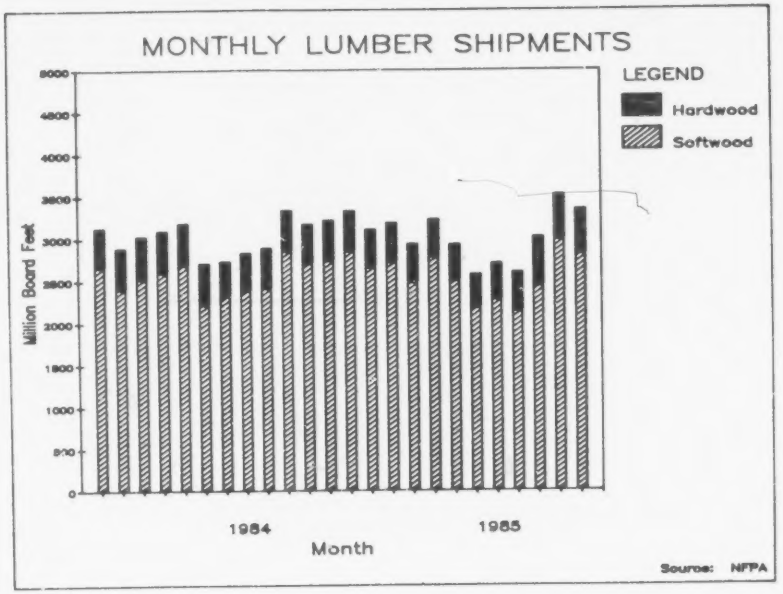
	1975	1976	1977	1978	1979	1980	1981	1982	1983	1984	'1to 5/85
	($ Millions)										
Nonresidential Buildings											
Office	5,273	5,046	5,263	5,838	7,204	8,996	11,305	14,817	13,194	15,881	19,040
Industrial	9,479	8,572	8,767	10,792	12,505	10,570	12,089	12,199	9,323	9,536	10,820
Other Commercial	8,310	8,468	9,486	10,651	11,765	11,242	10,858	9,151	9,541	13,566	16,900
Religious	920	1,013	1,044	1,107	1,180	1,106	1,078	991	1,130	1,305	1,340
Educational	8,836	7,423	6,112	6,218	5,886	6,225	5,119	4,682	4,313	4,267	4,500
Hospital and Instit'nal	5,256	5,578	5,024	4,621	3,963	3,939	4,524	5,056	5,500	5,110	4,680
Hotels	1,378	1,049	1,000	1,104	1,687	2,092	2,497	2,664	3,317	4,139	4,500
Miscellaneous	5,555	5,364	4,823	5,637	4,752	4,993	4,785	4,835	5,210	5,681	6,040
TOTAL	45,007	42,513	41,519	45,968	48,942	49,163	52,255	54,395	51,528	59,485	67,820

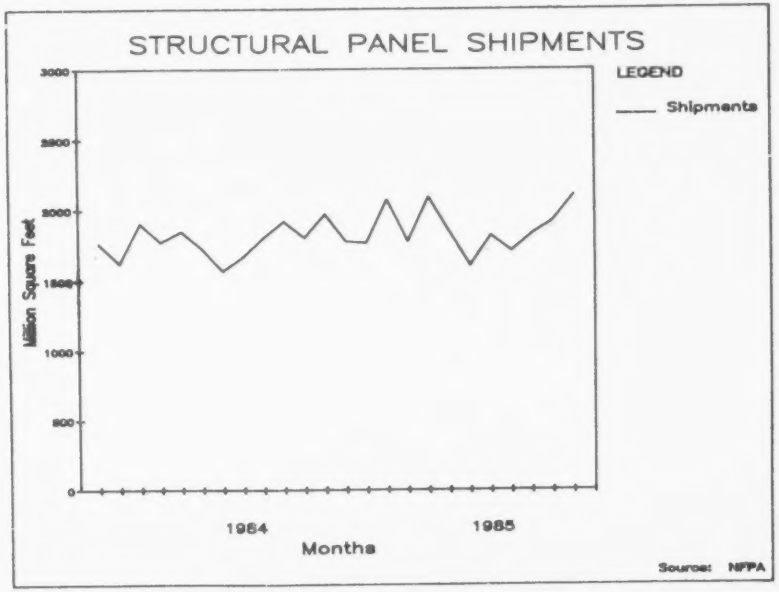
Source: Department of Commerce (Recategorized by NFPA)
NOTE: Totals include architectural and engineering fees

ECONOMICS MONTHLY
July, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	MAY 1985			MAY 31, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	1,039	1039	1028	693	1,732
Douglas Fir Region	602	677	653	562	760
Western Pine Region	771	786	830	508	1,259
California Redwood Region	172	179	188	139	381
Other Softwoods	131	136	136	240	283
TOTAL SOFTWOODS	2,715	2,817	2,835	2,142	4,415
% Change - April 1985	-1.8%	-5.7%	-13.1%	0.8%	-2.3%
% Change - May 1984	0.6%	2.7%	8.8%	8.6%	-12.9%
HARDWOOD LUMBER					
Southern Hardwood Region	239	235	234	240	803
Appalachian Hardwood Reg.	43	42	41	*	*
Other Hardwoods	259	255	253	170	374
TOTAL HARDWOODS	541	532	528	410	1,783
% Change - April 1985	-2.7%	-0.9%	1.5%	-1.0%	0.5%
% Change - May 1984	12.2%	10.4%	15.0%	-18.5%	16.2%
TOTAL LUMBER	3,256	3,349	3,363	2,552	6,198
% Change - April 1985	-1.9%	-3.0%	-11.1%	0.6%	-1.5%
% Change - May 1984	2.4%	3.8%	9.7%	3.1%	-6.2%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	9,862	NA	5,291	6,645
Maple Flooring (Sq. Ft.)	1,107	1,000	1,344	3,178	2,456
STRUCTURAL PANELS	2,040,551	2,103,481	2,034,735	464,345	399,156
% Change - April 1985	7.1%	3.5%	1.4%	-12.9%	-7.5%
% Change - May 1984	4.2%	6.8%	-1.1%	16.8%	-18.6%





YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

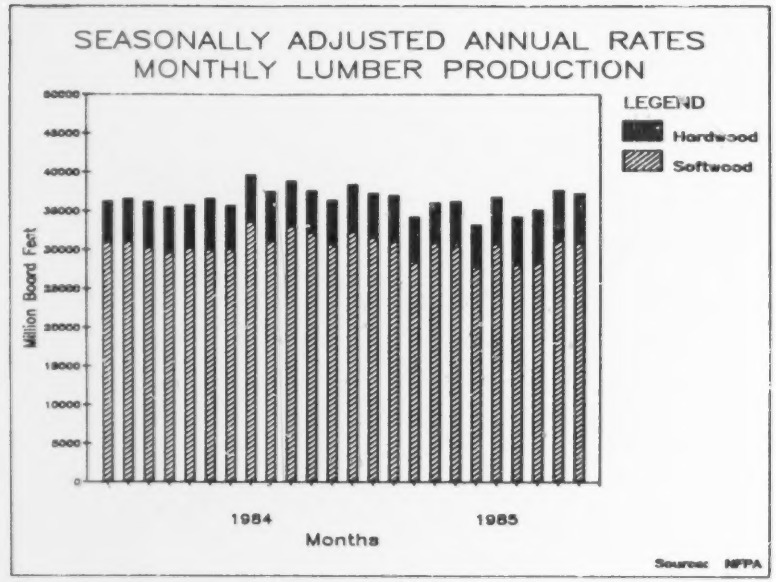
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	5 mos. '85	5 mos. '84	5 mos. '85	5 mos. '84	5 mos. '85	5 mos. '84
	(Million Board Feet)					
TOTAL LUMBER	15,197	-4.7%	15,218	-1.7%	15,527	1.7%
TOTAL SOFTWOOD	12,606	-7.1%	12,661	-3.4%	12,941	1.0%
TOTAL HARDWOOD	2,591	9.0%	2,557	7.2%	2,586	5.3%

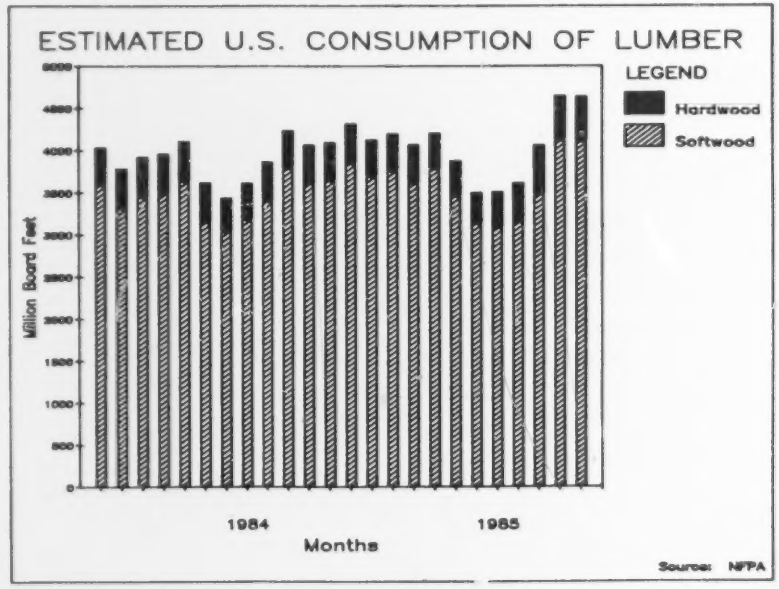
SEASONALLY ADJUSTED ANNUAL RATES

	PRODUCTION			SHIPMENTS		
		---% Change From--			---% Change From--	
LUMBER REGION	May '85	Apr. '85	May '84	May '85	Apr. '85	May '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,931	2.5%	7.3%	12,105	-8.6%	3.2%
Douglas Fir	7,089	-3.7%	-12.9%	8,124	5.7%	-2.4%
Western Pine	8,465	-6.7%	1.6%	8,709	-7.3%	2.6%
Calif. Redwood	1,960	18.9%	14.7%	2,063	13.8%	24.3%
Other Softwoods	1,499	-2.1%	0.8%	1,577	-1.7%	3.0%
TOTAL SOFTWOODS	30,944	-1.0%	0.5%	32,578	-3.4%	2.6%
TOTAL HARDWOODS	6,402	-1.6%	12.2%	6,247	2.2%	10.4%
TOTAL LUMBER	37,346	-1.1%	2.4%	38,825	-2.6%	3.8%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	May '85	Apr. '85	May '84	5 mos. '85	5 mos. '84
	(Million Board Feet)				
Total Consumption	4,645	-0.2%	13.2%	20,513	3.0%
Softwood Consumption	4,110	-0.2%	12.7%	17,953	1.9%
Hardwood Consumption	535	0.3%	17.5%	2,559	11.8%

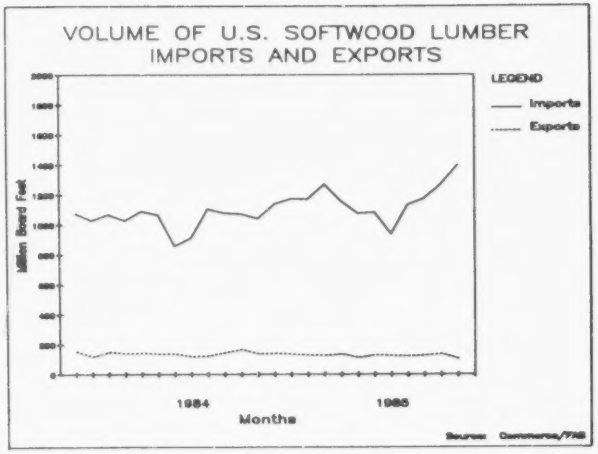


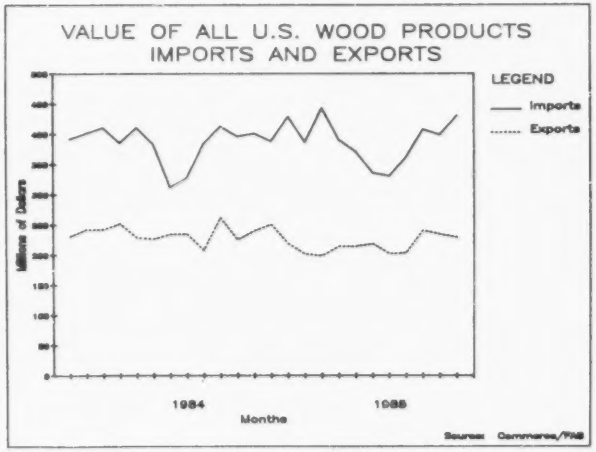


INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE (000$)			
		May '85	5 mo. 1985	% Change From Apr. '85	% Change From 5 mo. 1984	May '85	5 mo. 1985	% Change From Apr. '85	% Change From 5 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	103.1	613.8	-24.4%	-11.1%	34,036	202,190	-23.7%	-13.2%
To Canada	MMBF	20.4	111.7	-24.0%	-30.7%	4,643	28,429	-33.7%	-27.9%
SOFTWOOD LOGS	MMBF	355.0	1,564.5	12.3%	14.7%	117,044	484,711	14.8%	6.8%
SOFTWOOD PLYWOOD	MMSF 3/8"	10.6	159.4	-54.5%	-28.3%	2,544	36,856	-54.8%	-29.3%
HARDWOOD LUMBER	MMBF	30.0	166.3	-10.9%	-20.1%	18,805	102,334	-13.4%	-14.7%
HARDWOOD LOGS	MMBF	10.1	58.3	-1.5%	-25.6%	10,159	49,049	3.8%	-9.3%
HARDWOOD VENEER	MMSFsurf	71.1	326.5	7.0%	-33.3%	4,769	26,431	-12.9%	-33.5%
PARTICLEBOARD	MMSF 3/4"	7.1	40.8	-17.9%	-20.2%	1,594	8,214	-14.1%	-35.0%
ALL OTHER		NA	NA	NA	NA	39,368	135,375	-6.6%	-0.6%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	229,166	1,109,713	-2.2%	-5.1%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,395.8	5,906.1	10.0%	13.4%	267,092	1,127,312	11.9%	1.5%
From Canada	MMBF	1,388.0	5,870.2	10.4%	13.1%	265,409	1,120,810	12.0%	1.4%
SOFTWOOD LOGS	MMBF	4.5	27.2	-36.7%	-38.2%	2,151	7,519	23.2%	22.0%
SOFTWOOD PLYWOOD	MMSF 3/8"	4.6	34.1	-15.8%	27.3%	1,307	7,799	0.2%	33.1%
HARDWOOD LUMBER	MMBF	30.9	165.4	8.1%	16.5%	16,084	79,762	18.8%	6.6%
HARDWOOD LOGS	MMBF	2.6	7.5	360.7%	-32.0%	280	1,299	15.2%	-24.2%
HARDWOOD VENEER	MMSFsurf	145.6	544.4	32.3%	-21.9%	9,726	41,224	13.0%	-30.6%
HARDWOOD PLYWOOD	MMSF 3/8"	255.6	1,471.4	-9.8%	11.8%	31,766	191,038	-17.1%	0.4%
HARDBOARD	MMSFsurf	65.8	281.2	24.1%	338.0%	4,207	21,401	13.9%	62.1%
PARTICLEBOARD	MMSF 3/4"	129,562.0	601,710.2	0.8%	21.3%	11,401	52,993	7.5%	11.9%
ALL OTHER		NA	NA	NA	NA	85,662	397,691	5.5%	-3.3%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	430,380	1,929,559	8.0%	0.4%

Note: Volume total is not possible because the products are in different units of measure.



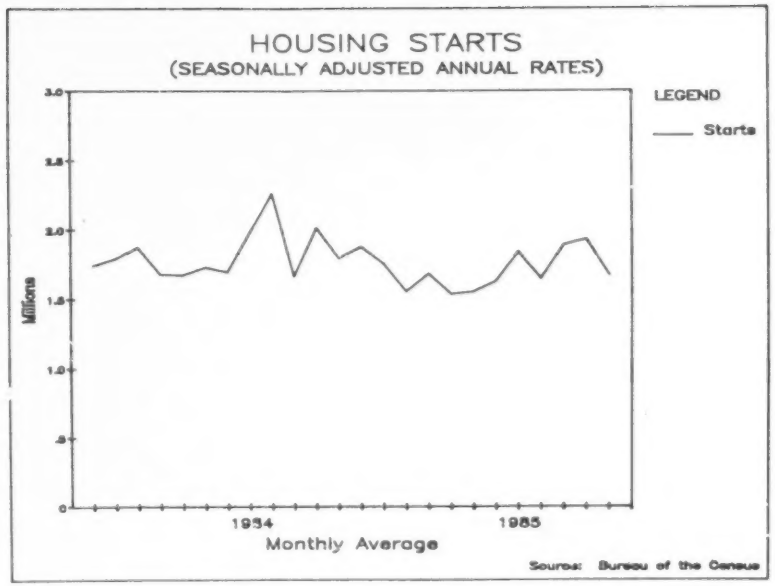


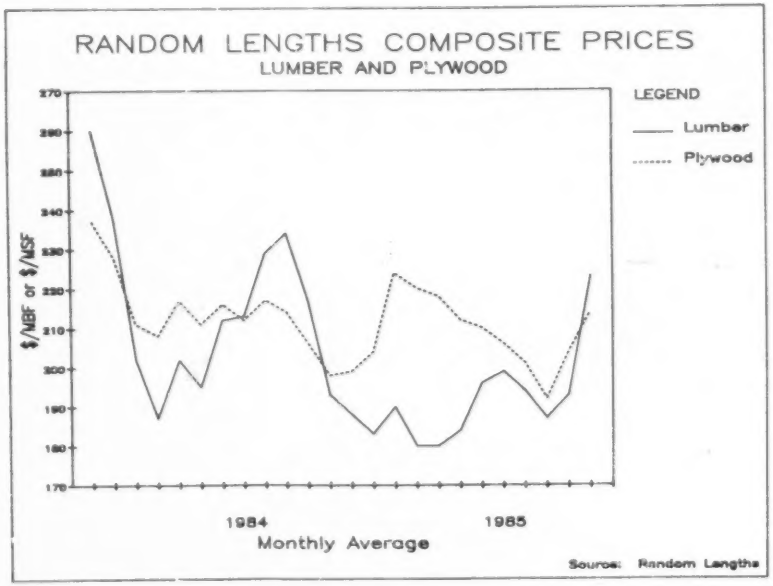
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	% Change From		Latest Period Available	% Change From
	May '85	Apr. '85	May '84	5 mo. '85	5 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	29.3	10.6%	8.1%	125.7	10.3%
Private	24.2	9.0%	7.6%	105.6	10.5%
Residential	12.8	12.3%	-1.5%	54.9	6.1%
Nonresidential & Other	11.4	5.6%	20.0%	50.7	15.8%
Public	5.1	18.6%	13.3%	20.1	9.4%
	May '85	Apr. '85	May '84	5 mo. '85	5 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	169.9	-3.4%	-7.8%	855.3	-6.8%
New Private Starts	169.6	-3.5%	-7.8%	854.4	-6.5%
Seas. Adj. Annual Rate	1573	-13.5%	-10.9%		
One-Family Housing Starts	107.8	-0.8%	-2.9%	533.0	-6.3%
Proportion of Total	63.4%			62.3%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	28,000	6.9%	-3.1%	116,500	-4.8%

EMPLOYMENT STATISTICS

	May '85	% Change From Apr. '85	% Change From May '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	97,386	0.3%	3.5%
All Manufacturing Industries	19,427	-0.2%	-1.0%
Lumber and Wood Products	696	0.3%	-2.2%
Furniture and Fixtures	494	-0.6%	1.9%





designed with greater spans and heavier load and stress factors than housing. Furthermore, building codes for large buildings tend to include greater limitations on all combustible materials, including wood, whether or not treated for fire retardancy. Nevertheless, nonresidential construction accounted for an estimated 2.5 billion board feet of lumber consumption in 1984 (6 percent of the total). A large share of total panel consumption is also used in nonresidential construction; of the 21.6 billion square feet of panels consumed in the U.S. in 1984, approximately 11.5 percent was used in nonresidential construction.

The Smaller the Building, the More Wood Used; The More Roof, the More Wood

Smaller buildings (less than 10,000 square feet) tend to use more wood than larger buildings. Although representing a third of the total construction value, small buildings account for greater than one-half of the wood use in this category of construction.

The type and amount of wood products used is a function of the building characteristics. Roof framing is largest use of lumber in nonresidential construction. Therefore, structures with large roof areas relative to floor area tend to use more wood products. Forty percent of all lumber used in nonresidential construction goes into roofs, primarily trusses, but also beams, rafters, joists and decking.

Building codes generally provide for more restrictive use in interior partitions; as a result, only fifteen percent of all lumber is used in interior framing, 13 percent in exterior walls, and ten percent for floor framing, while 8 percent is used for "facilitating purposes" (namely forms, scaffolding, etc.)

Nonresidential construction in the western U.S. is generally more wood intensive than other regions. That region's use of lumber per $1,000 of construction was over two times greater than in the South and over one and one-half times greater than in the North. A similar pattern was identified for plywood and particleboard. However, structural particleboard, hardboard and shingles are more often used in the northern region.

Wood-Use Factors

According to the Forest Service study, lumber use per $1,000 of construction averaged 25.8 board feet in 1982. Adjusted for 1984, the average lumber use factor is calculated to be 26.3 board feet per $1,000 value. Not unexpectedly, the factor is highest for religious buildings where laminated beams in vaulted ceilings are common. Use is lowest in industrial buildings due to fewer interior walls, more flat roofs, and prevalent use of engineered steel designs.

The average use of plywood found by the 1982 study, and then adjusted for 1984, was 21.1 square feet per $1,000; for structural and non-structural particleboard, 0.50 square feet. For structural particleboard the highest use was in hotels. For every $1,000,000 of construction, 9.8 squares of wood shingles are used. This latter product appears to have lost some market share in the past couple of years based upon the NFPA-adjusted estimates (Table II).

Measured in terms of floor area, lumber use was estimated in the FPL study at 1.18 board feet per square foot of floor area, and plywood at 0.95 square feet. Compared with 1969, these figures represent a 15 and 55 percent increase, respectively. The production of structural panels between the two years increased about 20 percent, indicating that the nonresidential market has taken on added importance for that group of products in particular.

Nonresidential Construction -- A Market Yet To Be Tapped

The significance of the FPL nonresidential market study is brought home when one considers the impact market expansion in this sector could have on total wood products consumption. For example, an additional two studs used for each

$1,000 of nonresidential construction would increase total lumber consumption by one billion board feet. Put another way, if the Southern construction industry used as much wood as they do in the west for nonresidential construction, total consumption in that region would increase by additional 750 million board feet.

In addition, the FPL study also shows that structural particleboard has taken a sizeable foothold in the construction market. These panel products are becoming increasingly popular as a substitute for plywood. The Forest Service study showed that their use predominates in the North; however, with new OSB/Waferboard capacity coming on line in other regions, it is likely that the use of these products will spread.

Identified as being applied in 16 percent of all roofs, laminated products also appear to be growing in popularity. To the extent that glu-lam products are more attractive substitutes to metal, they are making inroads against substitutes; however, to the extent that they require less lumber for the equivalent use, net lumber use declines.

A few other conclusions from the Forest Service study are worth noting. As part of a survey of contactors, from whom much of the data were obtained, the authors found several prevailing perceptions which affect wood use in the nonresidential marketplace. For example, they concluded that confidence in the quality of material stands out as a major determinant of material use; bad experience with low quality has steered some builders away from increasing their use of wood products. A lack of code familarity also inhibits some builders from utilizing more wood in buildings. Codes prevent combustible materials from being used in many applications in large buildings (five stories or more), but many contractors are not sufficiently aware of where wood products are permitted. Finally, the survey found a common perception that wood systems are more costly, especially since wood products tend to be sold by the piece and not packaged in an engineered system.

The non-housing market is one that is yet to be fully tapped by the wood products industry. Because the housing industry is an abundant consumer of wood, producers have focused marketing energy in that direction. However, with architectural design once again in vogue for both private and public edifices, the opportunities for selling more wood arise out of the woodwork, so to speak.

Table 2:

WOOD PRODUCTS CONSUMED IN NONRESIDENTIAL CONSTRUCTION

	1982		1984	
	Avg. Use Per $1,000	Total Consumed	Avg. Use Per $1,000	Total Consumed
Lumber	25.8 BDF	2,125 Million BF	26.3 BDF	2,493 Million BF
Plywood	20.6 SF	1,701 Million BF	21.1 SF	2,005 Million BF
Structural Ptlbd.	0.5 SF	41 Million SF	0.5 SF	47 Million SF
Particleboard	0.5 SF	41 Million SF	0.5 SF	51 Million SF
Hardboard	0.6 SF	50 Million SF	0.6 SF	54 Million SF
Shingles	10.6 SQ*	872,000 Squares	9.8 SQ*	932,000 Squares

*Per $1,000,000

Source: U.S. Forest Service (1982); NFPA (1984)

A 78 70-3A

NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume 1 Number 6 August, 1985

LONG-TERM TIMBER SUPPLY: THE SOUTH'S DILEMMA

Responding to new data showing a decline in southern timber inventories, the U.S. Forest Service has undertaken a major new study of the timber situation in the southern United States. Although the study will not be completed until 1986, there are already some indications that it will predict a cloudy future for the region's softwood timber supplies in the 21st century.

The Forest Service study is noteworthy for two reasons. First, the research is utilizing "state of the art" economic modeling techniques, far more sophisticated than methods used during the last such analysis in 1980. Second, the study results are likely to influence how and where new investments are made in southern forests and wood products manufacturing facilities.

The Problem

For most of the postwar period, net annual growth of softwood timber in the South increased. The most recent state forest surveys conducted by the U.S. Forest Service, however, reveal that net annual growth in the region, which reached 6.1 billion cubic feet in 1980, now appears to be declining. The decline in net annual growth has been especially pronounced in the five southeastern states (Virginia, North Carolina, South Carolina, Georgia, and Florida), where it has declined from 3.0 billion cubic feet in 1976 to 2.8 billion cubic feet in 1984. Furthermore, this reduction has been occurring at the same time annual removals of softwood timber have been rising. Consistent with record demand levels, annual removals in the South have increased 25 percent since 1976.

The Forest Service study has already documented a number of interesting observations. The agency has identified four factors influencing softwood growth in the South. They are: (1) a declining timberland base, (2) inadequate regeneration following pine harvests, (3) increased tree mortality, and (4) reduced growth per acre.

Factor 1: The Timberland Base; It Has Declined Following a Post-war Upswing

Between 1945 and 1965, commercial timberland acreage actually increased as agricultural cropland was converted to pine through natural regeneration or planting efforts. The preponderance of older age classes of pine and mixed pine-hardwood stands on nonindustrial land, and the healthy supply of pine sawtimber available today, is in large part a consequence of that transition. Altogether about 10 million acres were added to the timberland base in the period. A major government program, the Soil Bank Program of

MONTHLY STATISTICAL HIGHLIGHTS

In the first six months of 1985, imports of softwood lumber from Canada accounted for 33.4 percent of U.S. consumption.

Housing starts during the first six months of the year were down 6.1 percent compared with 1984.

The seasonally adjusted annual rate of lumber shipments fell 11.3 percent in June from May. New orders for softwood and hardwood lumber dropped 17.5 percent in June.

The total value of U.S. wood products imports for first half of 1985 was $2.4 billion, 4.3 percent over six months last year.

Copyright 1985. National Forest Products Association. All rights reserved. Information and data collected and compiled by NFPA may not be reproduced, offered through any retrieval system or data bank, or otherwise circulated for resale without the prior written permission by NFPA.

1956-1961, was responsible for planting close to two million of these acres.

The situation changed in the late sixties and early seventies, as conversions back to cropland averaged 700,000 acres per year. Inflated prices of agricultural commodities in general, and soybeans in particular, encouraged a sharp rise in actively farmed acreage. Thus, the timberland base declined.

Currently, the rate at which land is being converted to cropland has slowed considerably. Still, timberland is being steadily diverted to urban and related uses. The Forest Service projects that the trend will continue at an annual rate of 500,000 acres. However, several actions pending before Congress which may reverse this trend.

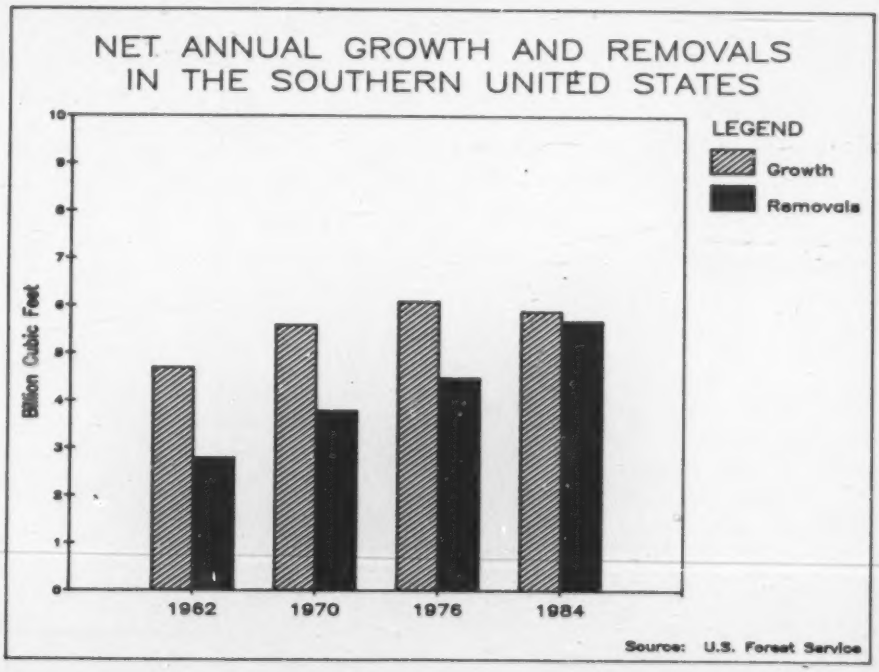
The 1985 Farm Bill contains a proposal for a conservation reserve. This would convert as many as 25-30 million acres of highly erodible cropland to grass or trees. Much of this land is located in the southern states. The proposed bill also contains provisions which would disallow government payments to farmers who farm erodible lands or wetlands. As the next few rounds on the federal budget unfold, reductions in commodity support programs may encourage additional retirement of cropland.

Factor 2: Nonindustrial Lands -- Poorly Regenerated

Inadequate regeneration on nonindustrial private forestland (NIPF) following harvesting is another factor adding to the reduction in net annual softwood growth in the South. This ownership accounts for some 70 percent of the commercial forestland base in the region. Recent Forest Service surveys show some improvement in the regeneration of pine on such land, but, on average, only one in every eight acres is artificially regenerated. By way of comparison, forest industry regenerates seven out of eight acres harvested. Moreover, many NIPF owners accept whatever regeneration nature provides after timber harvest. In many cases, without some intervention on the part of the landowner, hardwoods or mixed stands of pine and hardwood replace pure pine.

The lack of regeneration on nonindustrial land has attracted much attention within the forestry

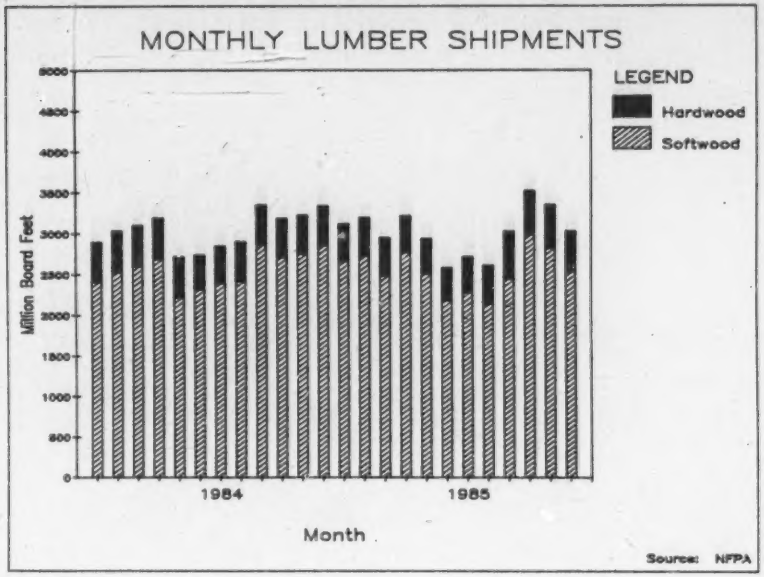
Figure 1: Annual removals are closing in on net annual growth.

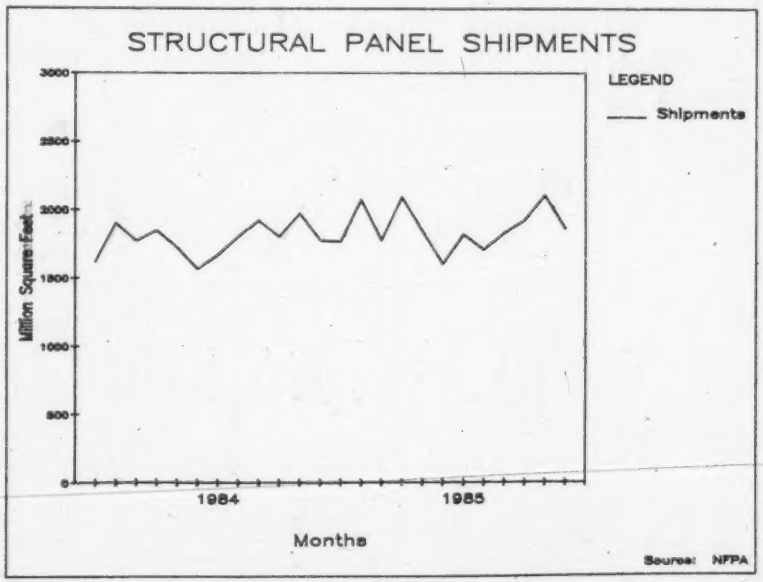


ECONOMICS MONTHLY
August, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY.

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	JUNE 1985			JUNE 30, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	894	814	644	528	1,818
Douglas Fir Region	624	620	612	555	863
Western Pine Region	783	807	798	499	1,308
California Redwood Region	149	169	161	126	349
Other Softwoods	124	122	112	234	295
TOTAL SOFTWOODS	2,574	2,532	2,327	1,942	4,633
% Change - May 1985	-5.7%	-10.3%	-18.0%	-9.5%	0.9%
% Change - June 1984	-7.4%	-11.5%	-18.9%	-2.2%	-8.3%
HARDWOOD LUMBER					
Southern Hardwood Region	233	222	206	224	820
Appalachian Hardwood Reg.	42	38	36	*	*
Other Hardwoods	252	239	222	152	992
TOTAL HARDWOODS	527	499	464	376	1,812
% Change - May 1985	-5.0%	-8.4%	-14.4%	-8.5%	1.6%
% Change - June 1984	0.2%	3.1%	19.6%	-7.6%	15.0%
TOTAL LUMBER	3,101	3,031	2,791	2,318	6,445
% Change - May 1985	-5.6%	-10.0%	-17.5%	-9.4%	1.1%
% Change - June 1984	-6.2%	-9.4%	-14.3%	-3.1%	-2.7%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	10,542	NA	5,554	7,276
Maple Flooring (Sq. Ft.)	1,101	1,470	1,162	3,351	2,127
STRUCTURAL PANELS	1,867,595	1,860,122	1,919,835	524,058	433,310
% Change - May 1985	-8.5%	-11.6%	-5.6%	12.9%	8.6%
% Change - June 1984	3.6%	5.0%	0.3%	-3.0%	8.0%





YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

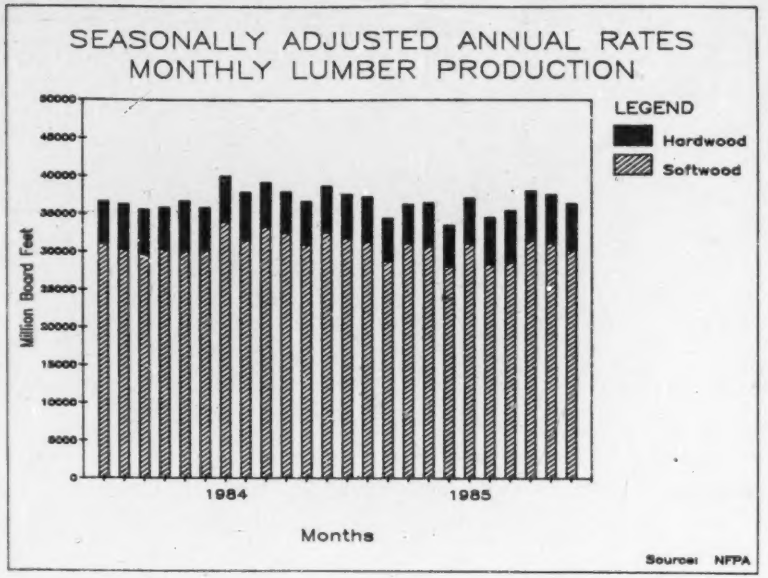
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	6 mos. '85	6 mos. '84	6 mos. '85	6 mos. '84	6 mos. '85	6 mos. '84
	(Million Board Feet)					
TOTAL LUMBER	18,387	-5.0%	18,291	-3.1%	18,359	-1.1%
TOTAL SOFTWOOD	15,255	-7.3%	15,222	-4.9%	15,295	-2.7%
TOTAL HARDWOOD	3,132	7.9%	3,069	6.9%	3,064	7.7%

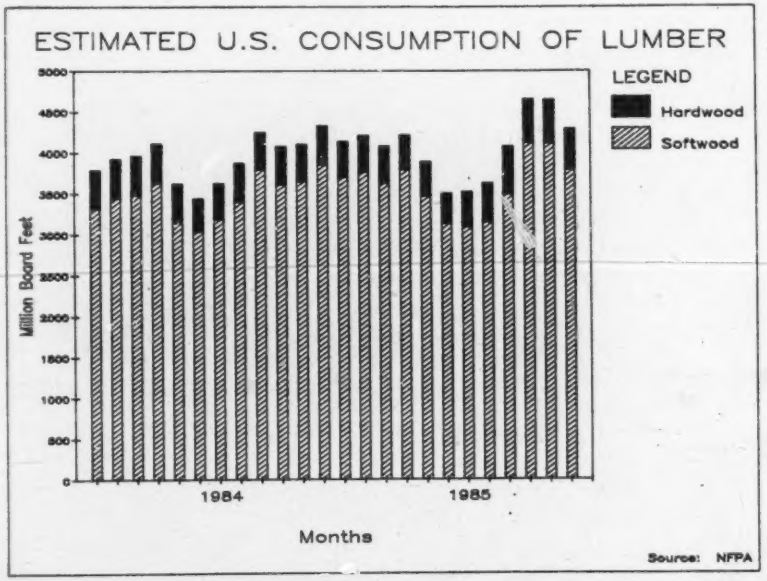
SEASONALLY ADJUSTED ANNUAL RATES

	PRODUCTION			SHIPMENTS		
		---% Change From---			---% Change From---	
LUMBER REGION	June '85	May '85	June '84	June '85	May '85	June '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	10,507	-11.9%	-6.9%	9,356	-22.7%	-16.0%
Douglas Fir	7,320	0.6%	-15.8%	5,673	-19.3%	-19.4%
Western Pine	9,149	7.2%	-1.5%	9,059	3.8%	-3.5%
Calif. Redwood	1,756	-6.0%	-1.3%	1,950	-1.1%	14.2%
Other Softwoods	1,465	-2.3%	-7.5%	1,381	-12.4%	-11.6%
TOTAL SOFTWOODS	30,197	-2.9%	-7.4%	28,419	-13.0%	-11.4%
TOTAL HARDWOODS	6,116	-6.9%	0.2%	6,238	-2.5%	3.1%
TOTAL LUMBER	36,313	-3.6%	-6.2%	34,657	-11.3%	-9.1%

U.S. LUMBER CONSUMPTION

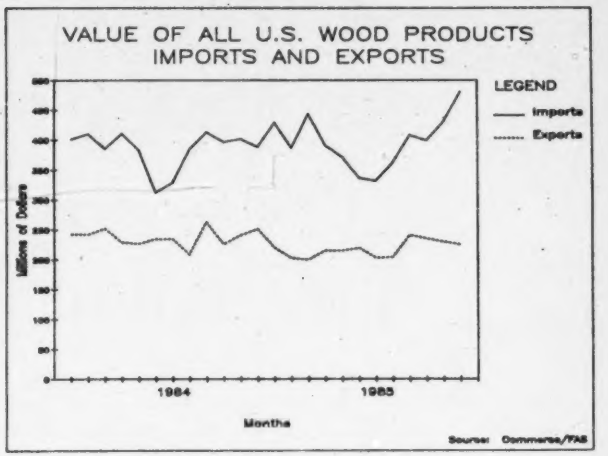
	CURRENT			YEAR-TO-DATE	
	Latest Month Available	----% Change From----		Latest Period Available	% Change From
	June '85	May '85	June '84	6 mos. '85	6 mos. '84
	(Million Board Feet)				
Total Consumption	4,293	-7.9%	-0.9%	24,848	2.3%
Softwood Consumption	3,791	-7.9%	-1.7%	21,773	1.2%
Hardwood Consumption	502	-8.4%	5.5%	3,075	11.2%

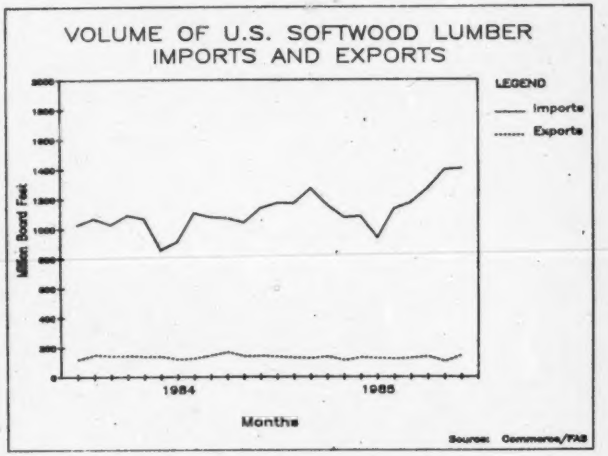




		VOLUME				VALUE (000$)			
		June '85	6 mo. 1985	% Change From May '85	% Change From 6 mo. 1984	June '85	6 mo. 1985	% Change From May '85	% Change From 6 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	146.0	759.6	41.6%	-8.6%	48,008	250,198	41.1%	-11.9%
To Canada	MMBF	34.5	146.2	68.5%	-22.5%	8,600	37,029	85.2%	-19.6%
SOFTWOOD LOGS	MMBF	292.3	1,856.8	-17.7%	11.0%	96,783	581,494	-17.3%	3.7%
SOFTWOOD PLYWOOD	MMSF 3/8"	11.3	170.7	6.3%	-29.7%	2,929	39,785	15.1%	-30.4%
HARDWOOD LUMBER	MMBF	33.6	199.9	12.0%	-19.0%	21,801	124,135	15.9%	-14.2%
HARDWOOD LOGS	MMBF	8.2	66.5	-19.1%	-35.8%	6,718	55,767	-33.9%	-13.2%
HARDWOOD VENEER	MMSFsurf	55.7	382.2	-21.7%	-32.9%	4,412	30,843	-7.5%	-33.6%
PARTICLEBOARD	MMSF 3/4"	12.7	53.5	78.7%	-9.8%	2,504	10,718	57.1%	-29.0%
ALL OTHER		NA	NA	NA	NA	40,282	235,657	2.3%	-1.2%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	224,592	1,334,305	-2.0%	-6.1%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,404.9	7,310.9	0.6%	15.2%	253,356	1,420,668	9.8%	6.1%
From Canada	MMBF	1,400.7	7,270.9	0.3%	15.0%	292,481	1,413,291	10.2%	6.0%
SOFTWOOD LOGS	MMBF	8.0	35.1	78.4%	-40.0%	2,142	9,661	-0.4%	27.8%
SOFTWOOD PLYWOOD	MMSF 3/8"	8.6	42.7	87.6%	34.0%	2,428	10,227	85.8%	44.6%
HARDWOOD LUMBER	MMBF	36.6	202.0	18.7%	16.9%	18,655	98,417	16.0%	10.9%
HARDWOOD LOGS	MMBF	1.2	8.7	-54.1%	-37.5%	485	1,784	73.2%	-17.3%
HARDWOOD VENEER	MMSFsurf	121.1	665.5	-16.8%	-20.5%	8,399	49,623	-13.6%	-30.7%
HARDWOOD PLYWOOD	MMSF 3/8"	364.0	1,835.4	42.4%	16.3%	42,787	233,825	34.7%	3.0%
HARDBOARD	MMSFsurf	72.7	353.9	10.5%	451.2%	4,985	26,366	18.5%	99.9%
PARTICLEBOARD	MMSF 3/4"	135,192.1	736,902.4	4.3%	20.9%	12,366	65,359	8.5%	12.7%
ALL OTHER		NA	NA	NA	NA	94,135	491,827	9.9%	-0.3%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	480,249	2,409,808	11.6%	4.3%

Note: Volume total is not possible because the products are in different units of measure.



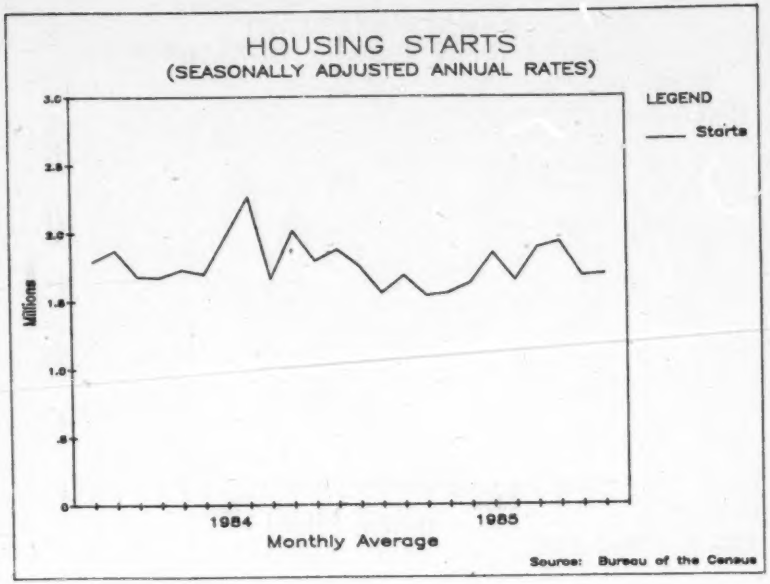


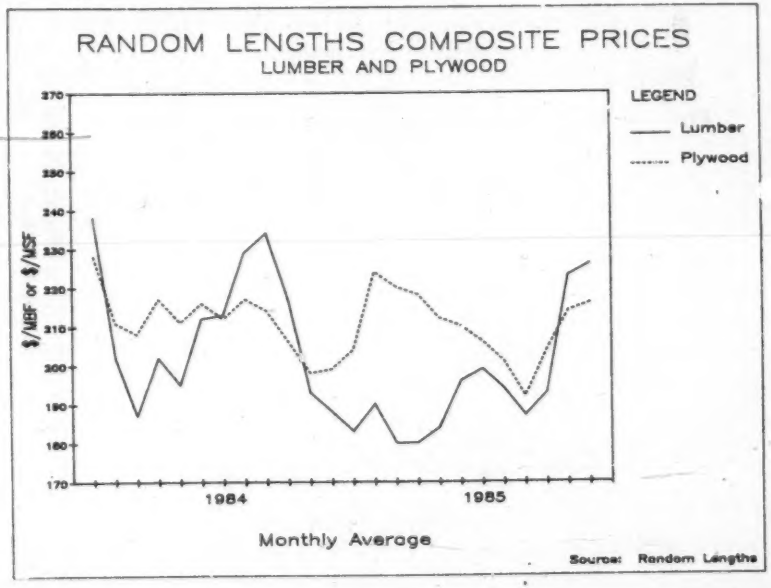
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	% Change From		Latest Period Available	% Change From
	June '85	May '85	June '84	6 mo. '85	6 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	31.5	8.6%	10.1%	157.2	10.2%
Private	25.4	6.7%	8.5%	130.9	10.1%
Residential	14.2	12.7%	4.4%	69.2	5.9%
Nonresidential & Other	11.2	.0%	14.3%	61.7	15.2%
Public	6.0	15.4%	15.4%	26.2	11.2%
	June '85	May '85	June '84	6 mo. '85	6 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	162.4	-4.8%	-0.4%	1,014.7	-6.1%
New Private Starts	162.4	-4.6%	0.2%	1,013.8	-5.8%
Seas. Adj. Annual Rate	1712	-3.7%	-2.4%		
One-Family Housing Starts	102.0	-5.1%	4.2%	537.3	-4.5%
Proportion of Total	62.8%			62.8%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	25,100	-10.4%	-9.4%	141,600	-5.7%

EMPLOYMENT STATISTICS

		% Change From	
	June '85	May '85	June '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	97,449	.0%	3.3%
All Manufacturing Industries	19,400	-0.1%	-1.5%
Lumber and Wood Products	695	-0.3%	-1.6%
Furniture and Fixtures	494	0.2%	1.9%





09/12/85

TABLE 1

ESTIMATED TOTAL REGIONAL LUMBER PRODUCTION, SHIPMENTS, AND NEW ORDERS

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	APPALACHIAN HARDWOOD	OTHER HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
PRODUCTION											
1975	6,967	7,134	8,445	1,690	1,475	25,711	2,761	1,109	2,002	5,872	31,583
1976	7,893	8,322	9,789	2,001	1,688	29,693	3,033	1,171	2,213	6,417	36,110
1977	8,879	8,796	10,309	2,000	1,753	31,737	3,063	1,207	2,410	6,680	38,417
1978	9,231	8,845	10,033	1,902	2,046	32,057	3,242	1,228	2,527	6,997	39,054
1979	9,283	8,427	9,780	1,818	2,124	31,432	3,452	1,261	2,581	7,294	38,726
1980	8,217	6,815	7,613	1,589	2,012	26,246	3,314	1,211	2,533	7,058	33,304
1981	8,415	6,270	7,147	1,452	1,392	24,676	3,343	1,225	1,626	6,194	30,870
1982	8,754	5,743	6,681	1,300	1,309	23,787	2,061	602	2,399	5,062	28,849
1983•											
1ST QUARTER	2,498	2,025	1,933	419	347	7,222	477	168	592	1,237	8,459
2ND QUARTER	2,717	2,094	2,187	405	374	7,777	489	152	589	1,230	9,007
3RD QUARTER	2,694	1,938	2,262	382	368	7,644	618	172	725	1,515	9,159
4TH QUARTER	2,497	1,877	2,106	374	347	7,201	611	156	705	1,472	8,673
TOTAL YEAR	10,406	7,934	8,488	1,580	1,436	29,844	2,195	648	2,611	5,454	35,298
1984•											
1ST QUARTER	2,663	2,337	2,252	435	389	8,076	612	135	685	1,432	9,508
2ND QUARTER	2,832	2,264	2,429	444	403	8,372	617	150	705	1,472	9,844
3RD QUARTER	2,735	1,985	2,213	407	371	7,711	661	122	720	1,503	9,214
4TH QUARTER	2,617	1,743	2,098	378	346	7,182	613	90	647	1,350	8,532
TOTAL YEAR	10,847	8,329	8,992	1,664	1,509	31,341	2,503	497	2,757	5,757	37,098
1985•											
1ST QUARTER	2,521	1,862	1,990	451	346	7,170	648	130	716	1,494	8,664
2ND QUARTER	2,948	1,906	2,382	460	389	8,085	714	140	784	1,638	9,723
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,469	3,768	4,372	911	735	15,255	1,362	270	1,500	3,132	18,387
SHIPMENTS											
1975	7,142	7,196	8,319	1,625	1,488	25,970	2,727	1,095	1,977	5,799	31,769
1976	7,782	8,293	9,744	2,044	1,679	29,542	3,028	1,168	2,209	6,405	35,947
1977	8,932	8,781	10,295	2,075	1,759	31,842	3,104	1,240	2,450	6,794	38,636
1978	9,226	8,906	10,067	1,884	2,051	32,134	3,232	1,221	2,518	6,971	39,105
1979	9,255	8,412	9,696	1,760	2,111	31,234	3,316	1,162	2,453	6,931	38,165
1980	8,018	6,821	7,607	1,590	2,012	26,248	3,092	1,048	2,316	6,456	32,704
1981	8,388	6,270	7,183	1,501	1,395	24,737	3,282	1,168	1,583	6,033	30,770
1982	8,464	5,793	6,775	1,349	1,303	23,684	2,127	635	2,489	5,251	28,935
1983•											
1ST QUARTER	2,496	1,827	1,830	354	329	6,846	516	187	646	1,349	8,195
2ND QUARTER	2,755	2,154	2,187	419	380	7,895	543	178	662	1,383	9,278
3RD QUARTER	2,690	1,925	2,151	410	363	7,539	612	169	718	1,499	9,038
4TH QUARTER	2,500	1,896	2,096	389	348	7,229	591	148	679	1,418	8,647
TOTAL YEAR	10,441	7,802	8,264	1,582	1,420	29,509	2,262	682	2,705	5,649	35,158
1984•											
1ST QUARTER	2,567	2,196	2,126	421	369	7,679	610	135	683	1,428	9,107
2ND QUARTER	2,824	2,263	2,395	440	403	8,323	605	146	691	1,442	9,765
3RD QUARTER	2,761	2,038	2,284	415	379	7,877	616	111	669	1,398	9,275
4TH QUARTER	2,590	1,912	2,209	397	360	7,467	583	85	614	1,282	8,749
TOTAL YEAR	10,742	8,409	9,014	1,673	1,508	31,346	2,416	477	2,657	5,550	36,896
1985•											
1ST QUARTER	2,453	1,807	1,899	385	331	6,875	646	129	713	1,488	8,363
2ND QUARTER	3,009	2,012	2,422	502	402	8,347	691	133	757	1,581	9,928
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,462	3,819	4,321	887	733	15,222	1,337	262	1,470	3,069	18,291
NEW ORDERS											
1975	7,251	7,430	8,665	1,702	1,583	26,631	2,745	1,104	1,991	5,840	32,471
1976	7,779	8,377	9,760	2,067	1,687	29,670	3,011	1,144	2,190	6,345	36,015
1977	8,970	8,712	10,331	2,119	1,762	31,894	3,153	1,256	2,489	6,898	38,792
1978	9,273	8,894	9,946	1,847	2,043	32,003	3,272	1,238	2,552	7,062	39,065
1979	9,273	8,388	9,630	1,664	2,098	31,053	3,240	1,118	2,386	6,744	37,797
1980	7,964	6,791	7,730	1,563	1,996	26,044	3,033	1,044	2,280	6,357	32,401
1981	8,433	6,200	7,076	1,501	1,387	24,597	3,310	1,185	1,600	6,095	30,692
1982	8,510	5,976	6,880	1,388	1,311	24,065	2,123	650	2,497	5,270	29,335
1983•											
1ST QUARTER	2,639	1,916	1,927	342	345	7,169	511	185	640	1,336	8,505
2ND QUARTER	2,718	2,102	2,197	403	375	7,795	546	179	667	1,392	9,187
3RD QUARTER	2,679	1,914	2,163	416	362	7,534	615	172	723	1,510	9,044
4TH QUARTER	2,611	1,932	2,063	412	355	7,373	622	153	712	1,487	8,860
TOTAL YEAR	10,647	7,864	8,350	1,573	1,437	29,871	2,294	689	2,742	5,725	35,596
1984•											
1ST QUARTER	2,465	2,346	2,173	401	374	7,759	646	141	722	1,509	9,268
2ND QUARTER	2,797	2,072	2,311	397	383	7,960	551	144	640	1,335	9,295
3RD QUARTER	2,738	2,055	2,325	426	382	7,926	595	108	647	1,350	9,276
4TH QUARTER	2,509	1,823	2,202	416	352	7,302	593	86	625	1,304	8,606
TOTAL YEAR	10,509	8,296	9,011	1,640	1,491	30,947	2,385	479	2,634	5,498	36,445
1985•											
1ST QUARTER	2,405	1,826	1,905	395	331	6,862	672	129	737	1,538	8,400
2ND QUARTER	3,022	1,987	2,508	510	406	8,433	667	128	731	1,526	9,959
3RD QUARTER											
4TH QUARTER											
TOTAL YEAR	5,427	3,813	4,413	905	737	15,295	1,339	257	1,468	3,064	18,359

• SUBJECT TO REVISION.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING

09/12/85

TABLE 2

ESTIMATED REGIONAL SOURCES OF DOMESTIC CONSUMPTION OF LUMBER (NET IMPORTS ALLOCATED)

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
1975	7,075	9,561	9,220	1,588	2,865	30,309	2,722	3,069	5,791	36,100
1976	7,641	12,069	10,820	1,981	3,575	36,086	3,054	3,387	6,441	42,527
1977	8,774	14,081	11,626	2,026	4,302	40,809	3,158	3,732	6,890	47,699
1978	9,096	15,133	11,559	1,849	5,003	42,640	3,242	3,755	6,997	49,637
1979	9,060	14,248	10,553	1,729	5,018	40,608	3,342	3,597	6,939	47,547
1980	7,757	11,461	8,509	1,563	4,542	33,832	3,028	3,244	6,272	40,104
1981	8,177	10,828	7,760	1,463	3,836	32,064	3,202	2,653	5,855	37,919
1982	8,232	10,381	7,316	1,327	3,917	31,173	2,031	3,066	5,098	36,270
1983*										
1ST QUARTER	2,442	3,290	1,982	359	1,150	9,223	487	810	1,297	10,520
2ND QUARTER	2,698	3,655	2,333	413	1,300	10,439	505	806	1,311	11,750
3RD QUARTER	2,644	3,638	2,296	403	1,273	10,254	572	858	1,430	11,684
4TH QUARTER	2,449	3,486	2,237	383	1,271	9,826	558	802	1,360	11,186
TOTAL YEAR	10,233	14,108	8,848	1,558	4,995	39,742	2,121	3,276	5,397	45,138
1984*										
1ST QUARTER	2,528	3,854	2,284	416	1,305	10,387	588	781	1,369	11,756
2ND QUARTER	2,771	3,965	2,564	425	1,404	11,128	576	821	1,397	12,525
3RD QUARTER	2,725	4,070	2,430	410	1,464	11,099	592	751	1,343	12,442
4TH QUARTER	2,546	3,782	2,329	393	1,353	10,402	564	679	1,242	11,645
TOTAL YEAR	10,570	15,672	9,606	1,643	5,526	43,017	2,320	3,031	5,351	48,368
1985*										
1ST QUARTER	2,416	3,640	2,002	382	1,303	9,742	644	847	1,491	11,233
2ND QUARTER	2,965	4,344	2,582	498	1,642	12,031	686	897	1,584	13,615
3RD QUARTER										
4TH QUARTER										
TOTAL YEAR	5,381	7,984	4,584	880	2,945	21,773	1,330	1,745	3,075	24,848

* SUBJECT TO REVISION

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHERS.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

09/12/85

TABLE 2

IMPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS											
	DOUGLAS FIR	OTHER FIR	HEMLOCK	SPRUCE	PINE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES (SAWED)	TOTAL LUMBER
1975	477.0	56.8	726.2	2,989.0	1,032.3	326.3	6.0	94.8	5,711.4	224.1	12.4	5,947.9
1976	744.2	91.3	1,083.8	4,116.0	1,305.4	480.2	8.7	121.2	7,950.8	228.3	8.2	8,187.3
1977	990.7	299.4	1,219.2	5,361.6	1,795.5	537.7	22.2	154.0	10,380.3	341.1	7.4	10,728.8
1978	976.2	508.9	1,219.8	6,212.9	1,916.9	657.5	41.8	190.6	11,824.6	361.4	12.3	12,198.3
1979	827.3	588.3	912.3	6,740.4	1,182.5	637.8	35.4	193.7	11,117.7	376.2	29.3	11,523.2
1980	559.0	460.8	627.8	6,167.9	1,023.9	543.1	20.7	156.6	9,540.1	293.2	31.3	9,864.6
1981	483.3	534.7	467.0	6,010.7	941.7	574.4	17.0	175.9	9,204.7	291.1	24.9	9,520.7
1982	504.3	460.7	293.9	6,341.2	801.6	539.0	28.8	149.4	9,118.9	211.0	26.2	9,356.0
1983												
1ST QUARTER	137.7	149.8	108.5	1,955.7	226.8	170.4	8.5	54.0	2,811.4	55.4	1.6	2,868.4
2ND QUARTER	132.5	181.0	85.0	2,148.9	240.0	157.9	24.0	61.7	3,031.0	61.0	4.0	3,096.1
3RD QUARTER	184.3	225.9	123.6	2,081.1	234.0	178.2	28.0	67.5	3,122.7	63.6	3.8	3,190.0
4TH QUARTER	145.8	152.0	99.5	2,168.7	219.0	157.6	13.0	56.8	3,012.3	80.5	3.2	3,095.9
TOTAL YEAR	600.3	708.6	416.7	8,354.4	919.8	664.1	73.5	239.9	11,977.4	260.5	12.5	12,250.4
1984												
1ST QUARTER	140.1	151.1	135.0	2,152.8	240.7	190.9	9.4	75.6	3,095.6	85.7	3.1	3,184.4
2ND QUARTER	137.1	168.6	96.8	2,390.5	251.8	136.3	9.0	59.3	3,249.4	87.1	6.6	3,343.1
3RD QUARTER	147.5	264.4	140.5	2,551.2	225.8	200.9	8.9	72.8	3,612.0	73.9	8.0	3,693.9
4TH QUARTER	178.2	151.0	142.6	2,377.0	183.4	176.4	7.7	67.3	3,313.2	81.0	6.5	3,400.7
TOTAL YEAR	603.0	765.1	514.9	9,471.4	901.6	704.1	35.0	275.0	13,270.2	327.7	24.2	13,622.2
1985												
1ST QUARTER	154.6	189.1	171.1	2257.0	165.8	210.2	26.9	66.9	3241.6	105.9	3.2	3350.7
2ND QUARTER	205.9	200.0	185.6	2907.4	237.8	233.3	10.2	89.2	4069.3	96.1	11.8	4177.2
3RD QUARTER												
4TH QUARTER												
TOTAL YEAR	360.5	389.1	356.7	5,164.4	403.5	443.5	37.1	156.0	7,310.9	202.0	15.0	7,527.9

EXPORTS OF LUMBER \1

(MILLION BOARD FEET)

	SOFTWOODS												
	DOUGLAS FIR	SOUTHERN PINE	PONDEROSA/ WHITE PINE	REDWOOD	HEMLOCK	SPRUCE	CEDAR	OTHER	SPECIAL \2 PRODUCTS	TOTAL SOFTWOOD	TOTAL \3 HARDWOOD	RAILROAD TIES \4 (SAWED)	TOTAL \5 LUMBER
1975	505.1	67.5	177.0	37.4	317.5	158.8	35.7	74.2	----	1,373.2	165.3	75.6	1,614.1
1976	571.7	141.4	214.0	61.3	294.2	165.5	60.7	75.7	----	1,584.5	225.5	30.9	1,840.9
1977	488.3	157.8	195.0	48.1	264.2	150.7	61.3	47.0	----	1,412.4	226.1	19.2	1,657.7
1978	456.9	130.5	136.9	34.9	272.5	135.4	59.2	120.1	23.1	1,368.9	320.1	25.8	1,714.8
1979	505.4	195.1	147.7	30.1	463.7	151.1	56.0	179.4	16.2	1,744.7	306.6	90.5	2,141.8
1980	520.8	261.4	168.1	27.3	511.2	136.4	62.0	248.6	20.2	1,956.0	378.6	128.3	2,462.9
1981	509.0	211.2	223.8	37.7	390.2	141.4	66.9	280.6	16.8	1,877.6	405.7	88.8	2,372.1
1982	457.2	231.8	140.8	22.5	391.7	124.9	40.5	206.0	14.8	1,630.2	356.2	34.4	2,020.8
1983													
1ST QUARTER	134.3	54.1	40.8	5.0	95.2	35.2	11.8	54.8	2.7	434.0	100.5	9.2	543.7
2ND QUARTER	170.2	57.0	57.5	6.4	95.0	27.2	12.8	58.2	2.9	487.2	121.0	16.4	624.6
3RD QUARTER	121.6	46.3	53.6	6.6	86.2	28.1	12.0	50.8	2.0	407.2	126.0	10.6	543.8
4TH QUARTER	133.1	51.0	45.4	6.1	99.8	23.3	10.2	44.1	3.1	416.1	130.8	11.1	557.9
TOTAL YEAR	559.3	208.4	197.3	24.0	376.2	113.9	46.8	207.8	10.8	1,744.5	478.2	47.2	2,269.9
1984													
1ST QUARTER	136.8	39.1	46.9	5.5	77.8	24.9	10.7	42.8	2.9	387.5	117.4	30.9	535.9
2ND QUARTER	159.3	53.5	45.0	15.1	81.8	19.8	10.1	56.0	3.8	444.2	129.3	9.4	582.9
3RD QUARTER	131.7	35.7	46.0	5.2	84.8	25.6	9.7	47.8	3.1	389.7	112.4	24.6	526.7
4TH QUARTER	104.3	44.1	36.3	4.4	93.1	27.7	8.7	56.1	3.3	377.9	107.4	19.7	505.0
TOTAL YEAR	532.1	172.4	174.1	30.1	337.4	98.1	39.2	202.7	13.1	1,599.3	466.5	84.6	2,150.4
1985													
1ST QUARTER	117.5	37.0	37.8	3.4	101.5	21.1	6.3	47.0	2.8	374.4	102.7	3.6	480.7
2ND QUARTER	129.9	44.4	42.1	3.8	83.2	17.2	7.0	55.1	2.8	385.4	97.3	7.7	490.4
3RD QUARTER													
4TH QUARTER													
TOTAL YEAR	247.5	81.4	79.9	7.2	184.7	38.2	13.3	102.1	5.6	759.8	199.9	11.3	971.0

1. Sawed timber, board planks and scantlings, flooring, box shook and railroad ties.
2. Includes siding and softwood lumber drilled or treated. Beginning 1978 includes siding and flooring. For exports, figures not availe prior to 1978.
3. Includes hardwood flooring, siding and hardwood lumber drilled or treated.
4. Includes a small amount of hewn railroad ties. Beginning with 1978 includes mine timber.
5. Includes box shook: 1973 - 4.4 mbf; 1974 - 6.1 mbf; 1975 - 4.1 mbf; 1976 - 6.0 mbf; 1977 - 5.8 mbf. Beginning with 1978 box shook is reported in appropriate species.

SOURCE: Foreign Agricultural Service, U.S. Department of Agriculture; Forest Products Division, BIE, U.S. DOC, from data of the Foreign Trade Division, Bureau of Census.

NOTE: DETAILS MAY NOT ADD TO TOTALS DUE TO ROUNDING.

09/12/85

TABLE 4

ESTIMATED GROSS MILL STOCKS OF LUMBER AND UNFILLED ORDERS FOR LUMBER BY REGION

(MILLION BOARD FEET)

	SOUTHERN PINE	DOUGLAS FIR	WESTERN PINE	CALIFORNIA REDWOOD	OTHER SOFTWOOD	TOTAL SOFTWOOD	SOUTHERN HARDWOOD	OTHER** HARDWOOD	TOTAL HARDWOOD	TOTAL LUMBER
GROSS MILL STOCKS										
DECEMBER 31ST										
1975	1,134	920	1,220	477	262	4,063	448	427	875	4,938
1976	1,245	949	1,335	434	271	4,214	453	434	887	5,101
1977	1,192	964	1,329	359	255	4,109	412	361	773	4,882
1978	1,197	903	1,295	377	260	4,032	422	378	800	4,832
1979	1,225	918	1,378	435	273	4,230	558	605	1,163	5,393
1980	1,424	912	1,185	434	273	4,228	780	985	1,765	5,993
1981	1,451	912	1,149	385	270	4,167	841	1,085	1,926	6,093
1982	1,741	862	1,055	336	276	4,270	775	962	1,737	6,007
1983*										
1ST QUARTER	1,743	1,060	1,158	391	294	4,646	736	889	1,625	6,271
2ND QUARTER	1,705	1,000	1,158	377	288	4,528	682	790	1,472	6,000
3RD QUARTER	1,709	1,013	1,269	349	293	4,633	688	800	1,488	6,121
4TH QUARTER	1,706	994	1,279	334	292	4,605	708	834	1,542	6,147
1984*										
1ST QUARTER	1,802	1,135	1,405	348	312	5,002	710	836	1,546	6,548
2ND QUARTER	1,810	1,136	1,439	352	314	5,051	722	854	1,576	6,627
3RD QUARTER	1,784	1,083	1,368	344	306	4,885	765	916	1,681	6,566
4TH QUARTER	1,811	914	1,257	325	293	4,600	795	954	1,749	6,349
1985*										
1ST QUARTER	1,679	969	1,348	391	308	4,695	797	958	1,755	6,650
2ND QUARTER	1,618	863	1,308	349	295	4,633	820	992	1,812	6,445
3RD QUARTER										
4TH QUARTER										
ESTIMATED UNFILLED ORDERS										
DECEMBER 31ST										
1975	453	550	338	204	256	2,001	260	177	437	2,438
1976	450	634	354	227	264	2,129	243	134	377	2,506
1977	488	565	590	271	267	2,181	292	189	481	2,662
1978	535	553	469	234	259	2,050	332	230	562	2,612
1979	553	529	403	138	246	1,869	256	119	375	2,244
1980	499	499	326	111	230	1,665	197	79	276	1,941
1981	544	429	219	111	222	1,525	225	113	338	1,863
1982	590	612	324	150	230	1,906	221	136	357	2,263
1983*										
1ST QUARTER	733	701	421	128	246	2,229	216	128	344	2,573
2ND QUARTER	696	649	431	112	241	2,129	219	134	353	2,482
3RD QUARTER	685	638	443	118	240	2,124	222	142	364	2,488
4TH QUARTER	796	674	410	141	247	2,268	253	180	433	2,701
1984*										
1ST QUARTER	694	824	457	121	252	2,348	289	225	514	2,862
2ND QUARTER	667	633	373	78	234	1,985	235	172	407	2,392
3RD QUARTER	644	650	414	89	237	2,034	212	147	359	2,393
4TH QUARTER	569	561	407	108	230	1,869	222	159	381	2,250
1985*										
1ST QUARTER	515	580	413	118	230	1,856	248	183	431	2,287
2ND QUARTER	528	555	499	126	234	1,942	224	152	376	2,318
3RD QUARTER										
4TH QUARTER										
UNFILLED ORDERS IN RELATION TO GROSS MILL STOCKS (Unfilled Orders As Percentage of Mill Stocks)										
1975	40%	60%	42%	43%	98%	49%	58%	41%	50%	49%
1976	36%	67%	42%	52%	97%	51%	54%	31%	43%	49%
1977	41%	59%	44%	75%	101%	53%	71%	52%	62%	55%
1978	45%	61%	36%	62%	100%	51%	79%	61%	70%	54%
1979	45%	58%	29%	32%	90%	44%	46%	20%	32%	42%
1980	35%	55%	28%	26%	84%	39%	25%	8%	16%	32%
1981	37%	47%	19%	29%	82%	37%	27%	10%	18%	31%
1982	34%	71%	31%	45%	83%	45%	29%	14%	21%	38%
1983*										
1ST QUARTER	42%	66%	36%	33%	84%	48%	29%	14%	21%	41%
2ND QUARTER	41%	65%	37%	30%	84%	47%	32%	17%	24%	41%
3RD QUARTER	40%	63%	35%	34%	82%	46%	32%	18%	24%	41%
4TH QUARTER	47%	68%	32%	42%	85%	49%	36%	22%	28%	44%
1984*										
1ST QUARTER	39%	73%	33%	35%	81%	47%	41%	27%	33%	44%
2ND QUARTER	37%	56%	26%	22%	75%	39%	33%	20%	26%	36%
3RD QUARTER	36%	60%	30%	26%	77%	42%	28%	16%	21%	36%
4TH QUARTER	31%	61%	32%	33%	78%	41%	28%	17%	22%	35%
1985*										
1ST QUARTER	27%	60%	31%	30%	75%	38%	31%	19%	25%	34%
2ND QUARTER	29%	64%	38%	36%	79%	42%	27%	15%	21%	36%
3RD QUARTER										
4TH QUARTER										

* SUBJECT TO REVISION.

** INCLUDES APPALACHIAN HARDWOOD AND ALL OTHER.

SOURCE: NATIONAL FOREST PRODUCTS ASSOCIATION

NOTE: DETAILS MAY NOT ADD TO TOTALS BECAUSE OF ROUNDING.

community. The long holding period for timber prevents many landowners from investing in new pine plantations. Those that do replant generally are motivated by the cost-share programs and favorable tax treatments afforded timber. Even with these encouragements, however, most harvested land goes untreated.

The consequences of inadequate regeneration on NIPF land appeared in the Forest Survey statistics. These surveys revealed a drop of 30 to 50 percent declines in the number of pine saplings on NIPF land.

Factor 3: Pine Mortality Appears To Be On the Rise

A third factor affecting the slowdown in growth of softwood timber in the South is increased pine mortality. The decline in forest health can largely be attributed to pine bark beetle epidemics which have destroyed extensive areas in recent years. Forest survey statistics suggest that insects account for 35 to 40 percent of softwood mortality. Natural suppression is the second leading identifiable cause of tree mortality, followed closely by disease. Of diseases affecting pines in the South, fusiform rust, littleleaf disease, and root rot are the most common.

Factor 4: Individual Tree Growth on Some Sites Has Slowed

Of all the factors affecting the slowdown in total net growth, the unexplained decline in the growth rates of individual trees in the piedmont and mountain regions of the Southeast has attracted the most attention. According to recent studies of selected forests, tree diameter growth rates have averaged some 20 to 30 percent lower over the past 10 years than over the previous 10 year period.

Although studies are underway to determine the cause (or causes) of this growth slowdown, several theories have already been put forward. Some researchers argue that normal changes in stand density and age could be directly related to the slowdown in growth. Still others suggest that several years of prolonged drought coupled with changing soil conditions as fields were converted to trees, and a significant increase in hardwood competition, may be causing the decline in average diameter growth rates on certain drought-prone piedmont sites. Finally, some researchers believe that atmospheric deposition (i.e. acid rain) is having an impact on growth rates in the region. The media have widely publicized the acid rain hypothesis, but the wide dispersion of affected stands and individual trees makes this theory unlikely.

Other Factors Affecting Future Supply/Demand

Numerous factors enter into the southern timber supply/demand relationship. Yields are strongly influenced by management practices, as well as changes in product mix and shifts in the availability of and demand for timber in other regions. Already composite panels requiring a different mix of raw material are becoming more popular at the expenses of veneered panels. As the marketplace changes and technology progresses, demand on the timber base can change dramatically.

Loss in Natural Pine Tempered by Plantations and Genetically Improved Stock

Both the apparent decline in the timberland base and the reductions in annual growth may be offset somewhat by the increase in the number of pine plantations. Data for the southeastern states show that acreage in natural pine stands declined by 13.3 million acres between 1962 and 1984, while planted pine plantations increased by 7.4 million acres. Pine plantations now account for 14 percent of the total timberland in the southeast, up from less than 5 percent in 1962. The biggest increase has occurred on forest industry land where natural stands are most often converted to plantations following harvest. Much of this planting is of genetically improved stock which produces higher yields. By most estimates, managed

forests show a twenty percent growth improvement over those left unmanaged.

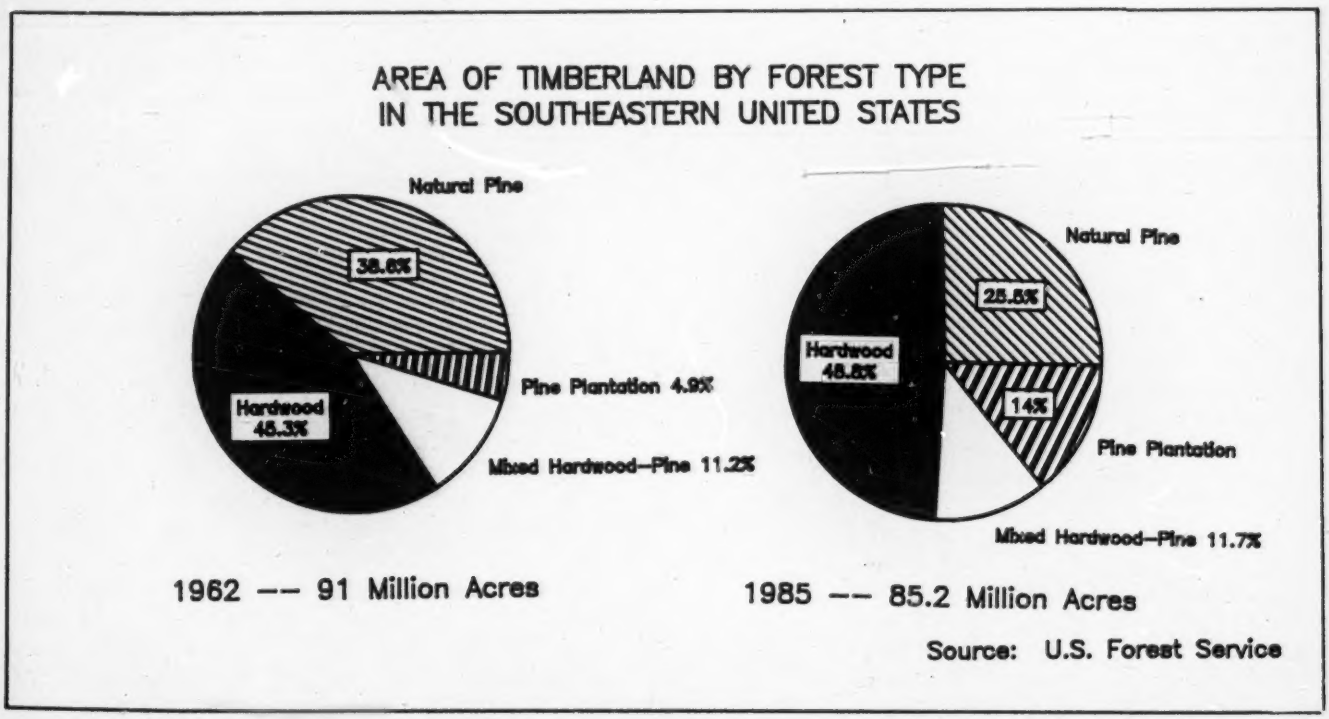
Plantation grown pine produces greater yields, but the big problem encountered to date has to do with quality. There is a trade-off between timber quality and short rotation trees. Plantation-grown pine tends to have a larger proportion of juvenile wood, which warps more frequently, and has less strength than wood from older trees.

The potential for added growth through genetically improved stock and intensive forest management has never been fully realized. The Forest Service study is in part designed to identify areas where forest management would be most profitable. Should investments be made in the numerous acres where financial returns are competitive, the impact on future timber supply could be dramatic.

The South -- America's Woodbasket

Reduced timber supply in the South is a challenge facing many companies at a time when they must also contend with less-than-favorable market conditions. During the past decade, many forest industry companies have made substantial investments in the southern region because of its extensive privately-owned forest resources, and its potential for forest management. In addition, the South has an economic climate extremely favorable to investment. Consequently, the South is not about to lose its preeminence as a wood-producing region. The region is heavily forested and will remain so in the foreseeable future, especially if investment incentives remain intact. However, the Forest Service southern study, when completed, is likely to project a significant change in the supply/demand relationship for timber. The agency may well conclude that current trends portend higher timber costs as a result of less supply.

Figure 2: Acres in pine plantations have increased, but so have acres in hardwood.



A7870-3A

NFPA Economics Monthly
An Economics Bulletin of the Forest Products Industry

Volume 1 Number 7 September, 1985

TRADE GETS THE ATTENTION IN WASHINGTON

The Reagan Administration took initiatives this month to slow the protectionist fervor in Congress. The President announced a series of actions which include a $300 million "war chest" to spur U.S. exports, the creation of an Export Council to propose ways of strengthening U.S. trade laws, a call for an early renewal of GATT (General Agreement on Tariffs and Trade) talks, and vigorous challenge against unfair practices by foreign countries.

The Dollar -- A Rising Problem

Many analysts attribute the overall strength of the dollar to the U.S. budget deficit which has soared to about $200 billion from $58 billion in 1981. The unprecedented debt has created a demand for capital in the United States, driving up the value of the U.S. dollar, and high real interest rates make the U.S. an attractive place to invest. The high dollar results in greater imports, fewer exports. The lasting impact of excessive imports is loss of market share -- once a foreign producer of a good has made an inroad into the U.S. market, every effort is made to maintain it.

The competition created by imports has kept consumer prices low, thus fueling the recovery, but the balance of trade now stands at a negative $150 billion, the highest ever. This effects jobs, profits, and the ability of the economy to grow.

Treasury Secretary Baker called an impromptu meeting of the finance ministers of five industrialized nations on September 22 to discuss possible intervention in world currency markets. A consensus was quickly reached that the several governments should try to force down the value of the dollar. The message was clear: the protectionist sentiment in Congress is worrisome to U.S. trading partners.

The Buck Stops Here

On the news of the meeting alone, the dollar dropped 5 percent. Although it has since rebounded, most economists see the dollar declining during the next several months. The big question is whether it will decline sufficiently to have an impact on America's trade imbalance.

During the past four months the U.S. dollar has, in fact, declined vis a vis a number of important currencies. For wood products, the value of the dollar takes on particular significance where it concerns our major trading partners (Table 1).

To date, the Japanese yen has gained the most against the dollar, but not enough to materially effect trade patterns in wood products. Since the dollar peaked against the yen in February of this year, it has declined by 9 percent. U.S. wood

MONTHLY STATISTICAL HIGHLIGHTS

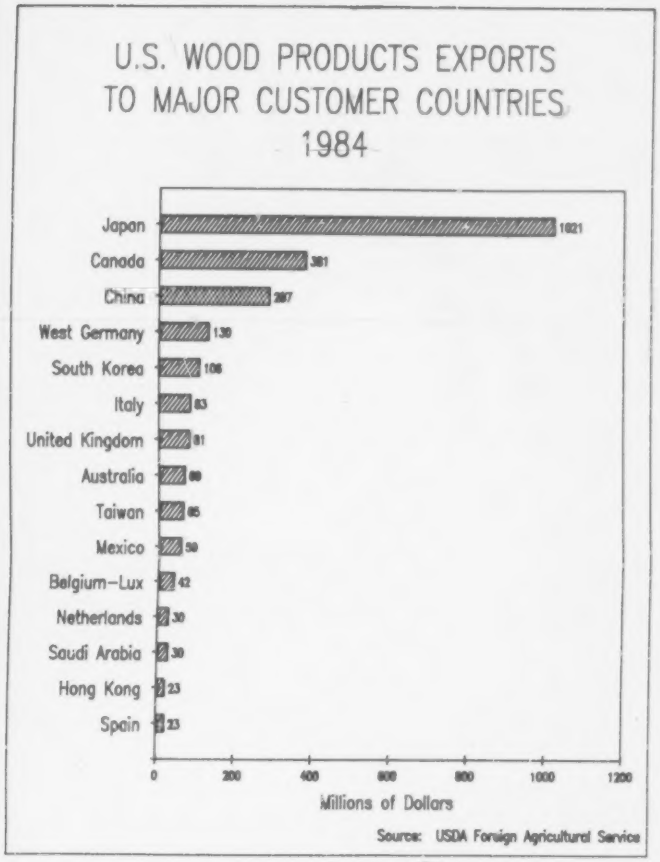
Shipments of softwood lumber were at a seasonally adjusted annual rate of 30,282 million board feet in July, up 6.6 percent from June.

For the first seven months of 1985 softwood lumber consumption was up slightly over last year to 25,449 million board feet.

Softwood lumber imports as a percentage of consumption were 33.6 percent during the first seven months of 1985.

Hardwood lumber production and shipments are up 6.7 percent and 5.8 percent, respectively over 1984.

Copyright 1985. National Forest Products Association. All rights reserved. Information and data collected and compiled by NFPA may not be reproduced, offered through any retrieval system or data bank, or otherwise circulated for resale without the prior written permission by NFPA.



products exports to Japan were $608 million during the first seven months of 1985, down 3 percent from last year. In contrast, the U.S. dollar has grown stronger vis a vis the Chinese Yuan, but wood products trade with that country has been increasing.

The dollar has declined against the German Mark has, but here again, exports to that country have slipped--by 33 percent this year.

On the homefront, the U.S. absorbs a tremendous volume of imports from Canada. The exchange rate between the Canadian and U.S. dollars tends to be less volatile than others. Nonetheless, the U.S. dollar has persistently gained strength against the Canadian dollar since the early 1970's, when they were at parity. Since February of this year, the Canadian dollar has appreciated by slightly more than one percent.

The Overvalued Dollar is but One of Several Factors Influencing Trade

There is general agreement that a realignment of the dollar is desirable, but other troubles could result if the dollar were to take an unexpected turn and fall dramatically. The trade imbalance would be ameliorated, but inflation might once again be ignited in the U.S. economy and economic recoveries in other nations might be setback.

Other factors also affect the ability of U.S. producers to successfully market abroad and to compete domestically with imports. For wood products, differences in standards or certification, distribution systems, other non-tariff barriers and the pricing of raw material in Canada effect trade.

U.S. EXPORTS--TRYING TO MAKE HEADWAY

Exports comprise 5 - 7 percent of U.S. production. However, as with a number of other U.S. produced commodities and finished goods, wood products exports have not fared well in recent years. The total value of these exports has declined on average 7 percent each year since 1980, and, with few exceptions, volumes are also down (Table II).

Japan: Barriers Restrict Export Market Potential

The U.S. exports approximately $1 billion worth of solid wood products to Japan annually. Fully 80 percent of this trade is in raw material--logs and chips. Overall, Japan imports 50 percent of its unprocessed wood, but only 8 percent of its finished wood products.

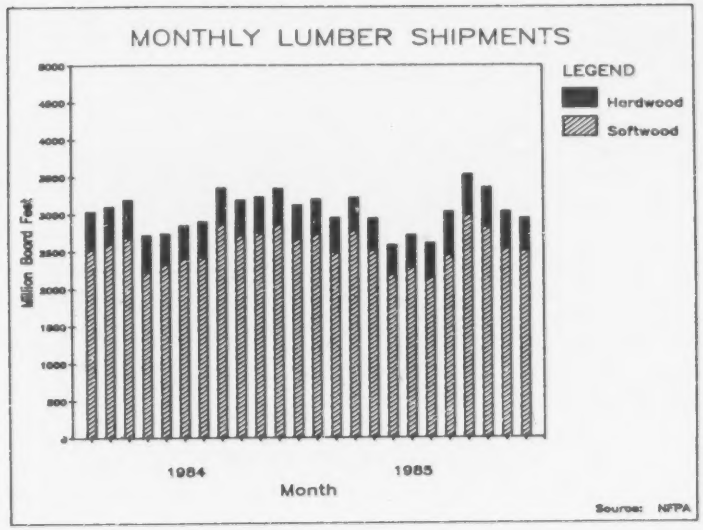
The Japanese have been reluctant to open up their market to finished products, preferring instead to protect their domestic industries with high tariffs and other non-tariff barriers. Although U.S. exports of softwood lumber to Japan (a duty-free good) amounted to about $160 million in 1984, softwood plywood exports were only about $2 million. A major thrust of U.S. promotion has been for panel products, which face duties of 12 to 15 percent, tariffs higher than those on most other Japanese imports.

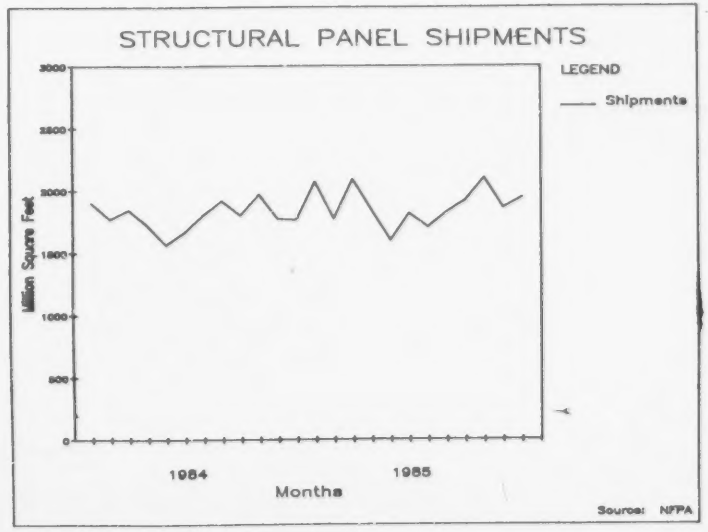
Several non-tariff barriers also make trade with Japan difficult. For

ECONOMICS MONTHLY
September, 1985

MONTHLY STATISTICS FOR THE WOOD PRODUCTS INDUSTRY

	ESTIMATED INDUSTRY TOTALS BY PRODUCING REGION				
	JULY 1985			JULY 31, 1985	
	Production	Shipments	Orders Received	Unfilled Orders	Gross Stocks
SOFTWOOD LUMBER		(Million Board Feet)			
Southern Pine Region	920	909	958	577	1,829
Douglas Fir Region	602	568	568	555	897
Western Pine Region	759	759	763	503	1,308
California Redwood Region	150	150	138	114	349
Other Softwoods	123	121	123	236	297
TOTAL SOFTWOODS	2,554	2,507	2,550	1,985	4,680
% Change - June 1985	-0.8%	-1.0%	9.6%	2.2%	1.0%
% Change - July 1984	0.5%	-5.9%	-6.3%	-2.7%	-5.0%
HARDWOOD LUMBER					
Southern Hardwood Region	214	196	213	241	838
Appalachian Hardwood Reg.	36	32	35	*	*
Other Hardwoods	230	209	227	172	1,017
TOTAL HARDWOODS	480	437	475	413	1,855
% Change - June 1985	-10.3%	-14.0%	0.6%	10.1%	2.4%
% Change - July 1984	-2.6%	-4.6%	2.6%	0.2%	15.1%
TOTAL LUMBER	3,034	2,944	3,025	2,398	6,535
% Change - June 1985	-2.4%	-3.2%	8.1%	3.5%	1.4%
% Change - July 1984	0.0%	-5.7%	-5.0%	-2.2%	.0%
* Included in Other Hardwoods					
FLOORING		(Thousand Feet)			
Oak Flooring (Bd. Ft.)	NA	9,900	NA	4,956	6,927
Maple Flooring (Sq. Ft.)	1,003	1,311	1,375	3,380	1,838
STRUCTURAL PANELS	1,955,541	1,945,617	1,949,023	527,464	331,374
% Change - June 1985	4.7%	4.6%	1.5%	0.6%	-23.5%
% Change - July 1984	12.5%	10.4%	3.9%	-19.3%	-28.9%





YEAR-TO-DATE PRODUCTION, SHIPMENTS, AND ORDERS

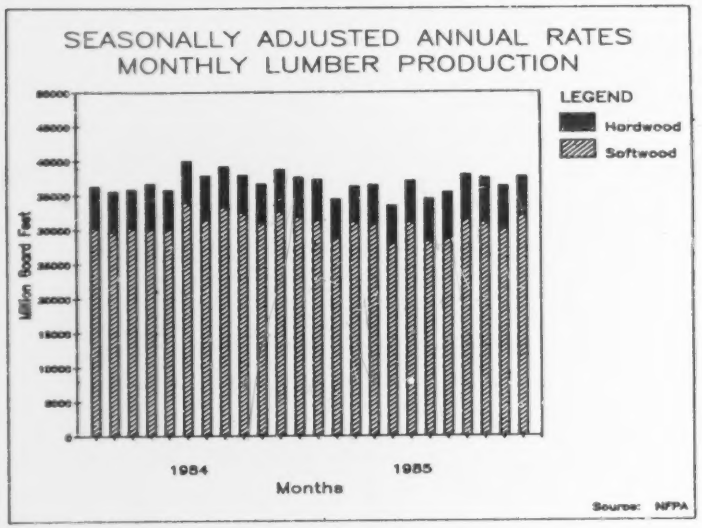
	PRODUCTION		SHIPMENTS		ORDERS RECEIVED	
	Latest Period Available	% Change	Latest Period Available	% Change	Latest Period Available	% Change
	7 mos. '85	7 mos. '84	7 mos. '85	7 mos. '84	7 mos. '85	7 mos. '84
	(Million Board Feet)					
TOTAL LUMBER	21,435	-4.2%	21,249	-3.4%	21,397	-1.6%
TOTAL SOFTWOOD	17,809	-6.2%	17,729	-5.0%	17,845	-3.2%
TOTAL HARDWOOD	3,626	6.7%	3,520	5.8%	3,552	7.4%

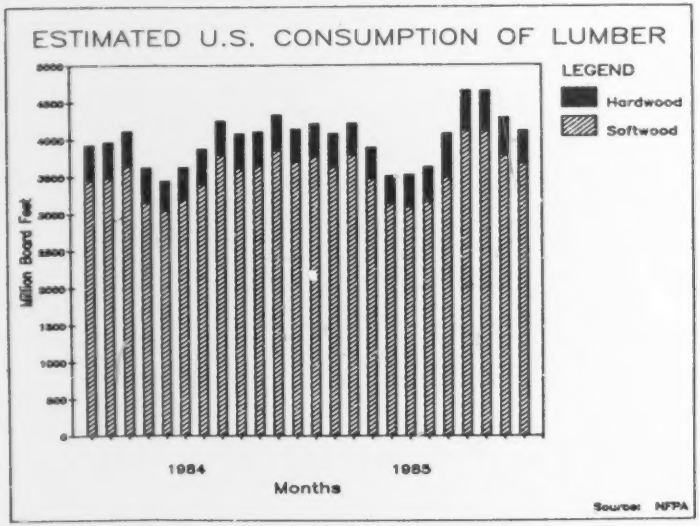
SEASONALLY ADJUSTED ANNUAL RATES

	PRODUCTION			SHIPMENTS		
		—% Change From—			—% Change From—	
LUMBER REGION	July '85	June '85	July '84	July '85	June '85	July '84
	(Million Board Feet)			(Million Board Feet)		
Southern Pine	11,040	5.1%	-1.4%	10,632	13.6%	-5.3%
Douglas Fir	7,751	5.9%	-7.2%	7,205	8.0%	-16.5%
Western Pine	9,773	6.8%	5.3%	9,081	0.2%	0.0%
Calif. Redwood	1,957	11.4%	29.3%	1,883	-3.4%	8.7%
Other Softwoods	1,514	3.4%	0.6%	1,482	7.3%	-5.5%
TOTAL SOFTWOODS	32,034	6.1%	0.6%	30,282	6.6%	-6.1%
TOTAL HARDWOODS	5,609	-9.7%	-2.6%	5,474	-13.8%	-4.6%
TOTAL LUMBER	37,643	3.4%	0.1%	35,756	2.8%	-5.8%

U.S. LUMBER CONSUMPTION

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	—% Change From—		Latest Period Available	% Change From
	July '85	June '85	July '84	7 mos. '85	7 mos. '84
	(Million Board Feet)				
Total Consumption	4,113	-4.4%	-0.7%	28,975	1.9%
Softwood Consumption	3,676	-3.0%	-0.7%	25,449	0.9%
Hardwood Consumption	437	-14.5%	-0.7%	3,526	10.0%

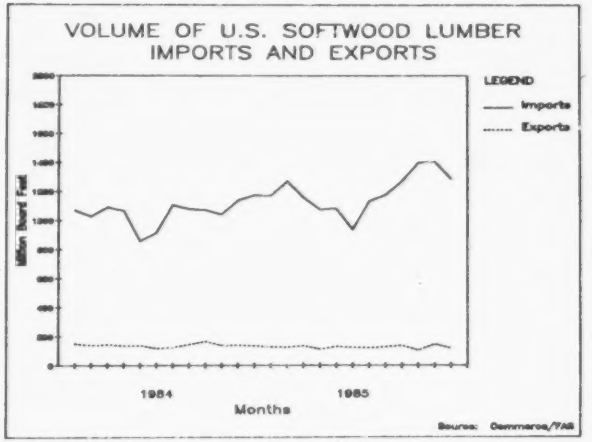


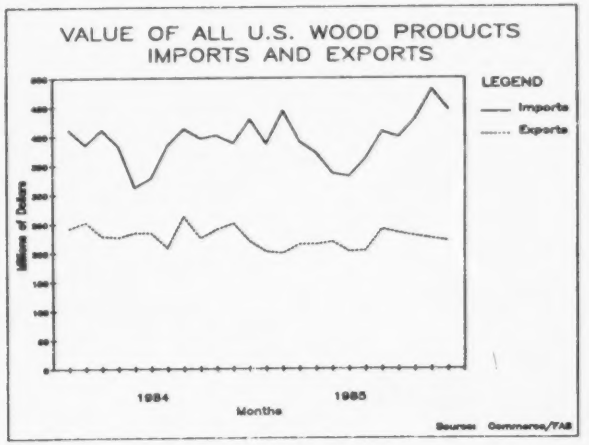


INTERNATIONAL TRADE STATISTICS

		VOLUME				VALUE (000$)			
		July '85	7 mo. 1985	% Change From June'85	% Change From 7 mo. 1984	July '85	7 mo. 1985	% Change From June'85	% Change From 7 mo. 1984
EXPORTS									
SOFTWOOD LUMBER	MMBF	117.2	877.0	-19.7%	-9.3%	38,601	288,799	-19.6%	-12.2%
To Canada	MMBF	26.6	172.8	-22.8%	-20.1%	6,423	43,452	-25.3%	-18.0%
SOFTWOOD LOGS	MMBF	324.9	2,161.7	11.2%	12.3%	105,213	686,707	8.7%	5.3%
SOFTWOOD PLYWOOD	MMSF 3/8"	17.0	187.7	51.0%	-28.2%	4,196	43,981	43.3%	-28.5%
HARDWOOD LUMBER	MMBF	28.2	228.1	-16.0%	-18.4%	17,863	141,998	-18.1%	-15.0%
HARDWOOD LOGS	MMBF	11.7	78.2	42.8%	-35.2%	7,145	62,912	6.4%	-12.8%
HARDWOOD VENEER	MMSFsurf	66.6	448.8	19.6%	-29.9%	5,099	35,942	15.6%	-31.0%
PARTICLEBOARD	MMSF 3/4"	7.6	61.1	-40.5%	-10.4%	1,718	12,436	-31.4%	-27.9%
ALL OTHER		NA	NA	NA	NA	37,406	273,063	-7.1%	-1.0%
TOTAL U.S. EXPORTS		NA	NA	NA	NA	220,027	1,554,322	-2.0%	-3.2%
IMPORTS									
SOFTWOOD LUMBER	MMBF	1,286.0	8,536.9	-8.5%	14.3%	270,499	1,691,167	-7.8%	7.6%
From Canada	MMBF	1,282.2	8,353.0	-8.5%	14.1%	269,108	1,682,399	-6.0%	7.6%
SOFTWOOD LOGS	MMBF	0.7	35.8	-90.9%	-48.4%	279	9,940	-87.0%	16.1%
SOFTWOOD PLYWOOD	MMSF 3/8"	5.9	48.6	-31.9%	17.5%	1,915	12,142	-21.1%	34.2%
HARDWOOD LUMBER	MMBF	28.5	230.5	-22.3%	14.7%	16,193	114,610	-13.2%	9.6%
HARDWOOD LOGS	MMBF	3.2	12.0	167.9%	-29.5%	414	2,198	-14.6%	-16.2%
HARDWOOD VENEER	MMSFsurf	148.2	813.6	22.4%	-18.6%	9,245	58,868	10.1%	-30.0%
HARDWOOD PLYWOOD	MMSF 3/8"	292.4	2,127.8	-19.7%	14.2%	35,106	268,931	-18.0%	0.8%
HARDBOARD	MMSFsurf	64.8	418.7	-10.9%	154.9%	4,090	30,476	-18.0%	-8.7%
PARTICLEBOARD	MMSF 3/4"	125,224.1	862,126.4	-7.4%	11.6%	11,394	76,753	-7.9%	5.4%
ALL OTHER		NA	NA	NA	NA	95,945	587,772	1.9%	0.8%
TOTAL U.S. IMPORTS		NA	NA	NA	NA	445,615	2,853,423	-7.2%	4.3%

Note: Volume total is not possible because the products are in different units of measure.



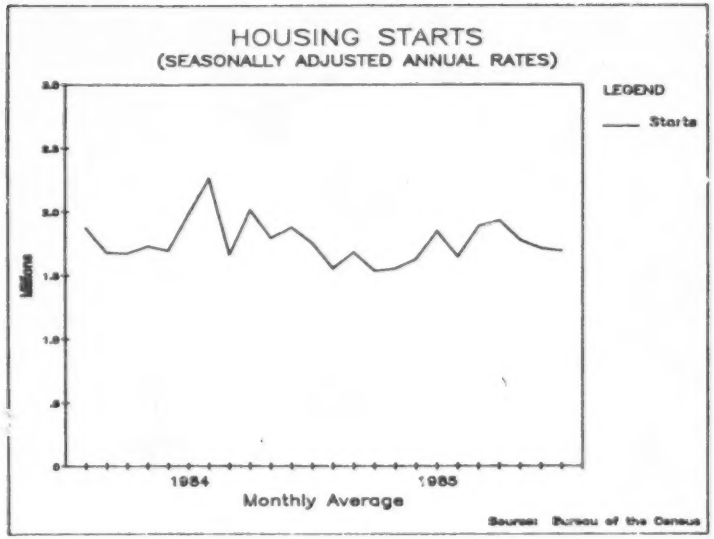


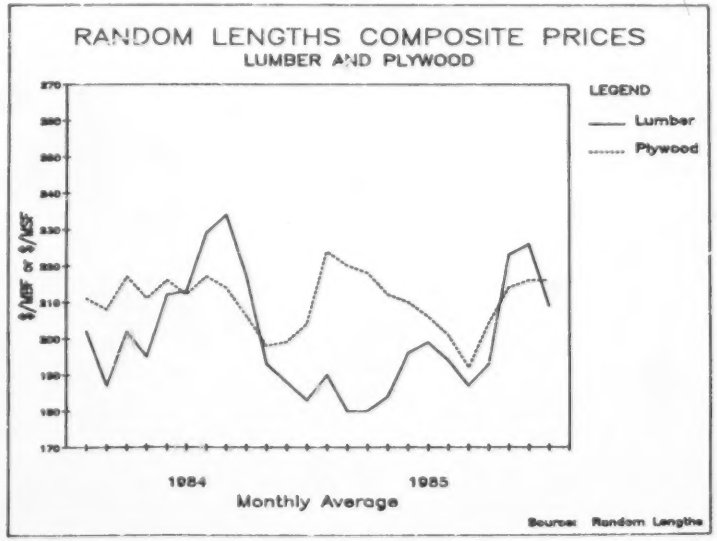
CONSTRUCTION AND HOUSING STATISTICS

	CURRENT			YEAR-TO-DATE	
	Latest Month Available	% Change From		Latest Period Available	% Change From
	July '85	June '85	July '84	7 mo. '85	7 mo. '84
	(Billions of Dollars)				
VALUE OF ALL NEW CONSTRUCTION PUT-IN-PLACE	31.0	-1.8%	9.2%	188.2	10.0%
Private	24.6	-3.7%	7.4%	133.4	9.5%
Residential	13.3	-6.8%	5.9%	82.2	5.4%
Nonresidential & Other	11.3	0.2%	9.2%	73.3	14.6%
Public	6.4	6.2%	17.0%	32.8	12.8%
	July '85	June '85	July '84	7 mo. '85	7 mo. '84
	(Thousands of Units)				
NEW HOUSING UNITS STARTED					
Total Private & Public	159.5	-2.4%	7.9%	1,177.0	-4.2%
New Private Starts	159.2	-2.5%	8.0%	1,175.6	-3.9%
Seas. Adj. Annual Rate	1694	-1.1%	9.0%		
One-Family Housing Starts	105.5	3.7%	14.8%	739.5	-2.6%
Proportion of Total	66.1%			62.8%	
	(Number of Units)				
SHIPMENTS OF MOBILE HOMES	24,300	-3.2%	-0.8%	165,900	-5.0%

EMPLOYMENT STATISTICS

		% Change From	
	July '85	June '85	July '84
	(Thousands of Employees)		
TOTAL EMPLOYMENT (Seasonally Adj.)			
All Industries	97,692	0.2%	3.4%
All Manufacturing Industries	19,393	.0%	-1.7%
Lumber and Wood Products	702	1.0%	-0.6%
Furniture and Fixtures	496	0.4%	2.5%





example, Japan tolerates a degree of restriction and cartelization within their own distribution networks unlike that in other countries. This manifests itself in very close linkages between producers, banks, distributors and the government. Under such a system, when an industry is in trouble, the government offers financial and other assistance. The ailing Japanese plywood industry successfully lobbied for protection and recently received $750 million of economic assistance.

Recent concessions by the Japanese government have had little effect on wood products trade. Despite assurances by the Japanese government that action on tariffs would be forthcoming, no significant progress has yet been made. Talks between industry and government representatives of both countries on product standards, which also make trade difficult, are currently in process.

China: A Nation Undergoing Change

The growth rate of U.S. wood products exports to China far exceeds that of any other single country. From virtually no trade in 1979, Chinese purchases of wood products grew to $288 million in 1984, and continue to grow. During the first six months of 1985, wood product exports to China were valued at $172 million, up 30 percent over 1984. As with Japan, China primarily imports logs; over 97 percent of the U.S. shipments are softwood sawlogs, principally from the Douglas Fir region.

Table 1

TRENDS OF SELECTED EXCHANGE RATES

	Feb. 85 Avg.	Sept. 85 Avg.	% Change
Japanese Yen	260.48	237.74	(8.73)
German Mark	3.303	2.848	(13.78)
Canadian $	1.355	1.370	1.11
Chinese Yuan	2.835	2.971	4.80
Weighted Average*	158.43	139.65	(11.85)

Source: Federal Reserve System
*: Weighted Average of All Currencies
Note: Most currencies peaked against the dollar in February 1985

The future of Chinese trade stands to be affected by a pending textiles bill, "The Textiles and Apparel Trade Enforcement Act." To protect U.S. domestic textiles industries, Asian textile imports would be cut by one-third or more. In retaliation, the Chinese may reduce their purchases of certain other products from the U.S., including wood products. For this reason, there is opposition to the textile legislation by wood products producers with export interests in the effected countries.

In the European Community, West Germany is the Major U.S. Customer

In the European Economic Community (EEC), West Germany is the largest buyer of U.S. wood products with 31.6 percent of America's european trade, followed by Italy (20.3 percent) and Great Britain (19.6 percent).

One major constraint of expanded wood products trade with Europe is the requirement that all ECC imports of oak logs and lumber be fumigated for oak wilt disease. U.S. producers are pressing for changes in this requirement, pointing out that kiln-dried lumber does not require treatment, and arguing that the need for fumigation on logs varies with the season. Industry participants are optimistic about the eventual outcome of discussions dealing with this issue.

The European community also sets low quotas for softwood plywood, amounting to 600,000 cubic meters (678 million square feet). Competition between the U.S. and Canada for this limited European plywood market is severe. A major objective of the U.S. and Canadian industries is in securing an increase to this quota.

IMPORTS-- EVER-RISING COMPETITIVE PRESSURES

Of all the trade issues of interest to producers in the wood products industry, none is more important than Canadian imports of softwood lumber. This vexing problem remains on the forefront of the trade controversies. The Canadian market penetration has continued to astound U.S. producers. Since the beginning of the year, imports from Canada are up 15 percent

Table II

VOLUME AND VALUE OF U.S. EXPORTS

VOLUME

	1980	1981	1982	1983	1984	7 Mo. 85	7 Mo. 84	% CHANGE
Softwood Lumber (MMBF)	1,967	1,895	1,615	1,734	1,586	887	969	-9.3
Softwood Logs (MMBF)	3,109	2,377	3,115	3,391	3,369	2,182	1,914	12.3
Softwood Plywood (MMSqFt)	373	686	452	574	371	188	241	-28.2
Hardwood Lumber (MMBF)	355	379	334	448	441	228	270	-18.8
Hardwood Logs (MMBF)	152	112	93	112	126	78	105	-35.2
Hardwood Veneer (MMSqFt)	1,077	920	804	1,024	1,002	449	583	-29.9
Particleboard (MMSqFt)	128	140	82	95	108	61	67	-10.4

VALUE (Million $)*

	1980	1981	1982	1983	1984	7 Mo. 85	7 Mo. 84	% CHANGE
Softwood Lumber	777	653	575	601	529	289	324	12.2
Softwood Logs	1,452	1,003	1,174	1,068	1,079	687	649	5.5
Softwood Plywood	96	167	107	136	87	44	57	-28.5
Hardwood Lumber	235	242	216	288	282	142	163	-15.0
Hardwood Logs	129	92	847	98	101	63	71	-12.8
Hardwood Veneer	106	80	73	93	82	36	47	-31.0
Particleboard	26	35	20	23	26	12	15	-27.9
All Other	850	750	590	520	500	273	276	-1.0
TOTAL	3,670	3,017	2,835	2,823	2,689	1,554	1,635	-5.2

Source: Department of Commerce, Foreign Agricultural Service
*: FAS Value Basis

over 1984, and they have captured over 33 percent of the U.S. market, up from 31 percent in 1984.

The Coalition for Fair Lumber Imports, an organization formed last spring, is pressing the issue on Capitol Hill, attempting to get passage of remedial legislation. The Coalition argues that the government's stumpage pricing system in Canada results in very low raw material costs, giving producers an unfair advantage. The Coalition is supporting a proposal to modify the definition of subsidy in U.S. trade law. The proposal would make it all but certain that those pricing practices would be found to be a countervailable subsidy.

The Canadians continue to argue that the dollar is the principal reason their producers have been successful in the U.S. market, coupled with a consumer preference for the Canadian product. On October 8th, the International Trade Commission is scheduled to deliver to the U.S. Trade Representative a report on the circumstances and impact of Canadian lumber imports. The report may set the tone for further debate on the issue.

Prime Minister Mulroney of Canada has asked the U.S. to begin discussions on a free trade agreement between the two countries to avoid tariffs and other barriers. Many observers note that unless there is a resolution of the lumber imports question, serious negotiations on a free trade agreement could not begin.

Legislation on Trade is Likely in the Very Near Future

The next several months will see action by Congress and the Administration on several trade-related issues. For the wood products industry, the implications are apparent. Protectionist bills to contain imports from Japan and China, could potentially affect wood products exports to the industry's first and fourth largest customers, respectively. And legislative proposals directed at Canadian imports of lumber could dramatically change the competitive relationships for wood products in North America. Producers have much to gain or lose depending on the outcome of the several legislation and administrative actions.